CONSTRUCTION NEWS

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CONTENTS.

CONSTRUCTION NEWS:
Plans and Specifications on File..... 9
List of Contracts Pending..... 9
Railways 10
Electric Railways 10
Light and Power Plants..... 10
Bridges 11
Buildings 12
Water Supply and Irrigation..... 12
Sewerage 13
Streets and Roads..... 13
Manufacturing Plants 14
Miscellaneous Contracts..... 15
U. S. Possessions..... 15
Contract Prices 15
INDUSTRIAL NOTES 16
TRADE PUBLICATIONS 16
PROPOSALS 16

CONSTRUCTION NEWS.

Plans and Specifications on File.

*(*denotes that this work is advertised in Engineering News.)*

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.	Work.	Place.	See issue.
7-10	Air compressors, Wash., D. C.	(S)	6-17
7-10	Turbo-alternators, New York.	(S)	6-17
7-10	Power plant piping, Boston, Mass.	(S)	6-17
7-10	Elec. equip., Phila., Pa.	(S)	6-17
7-10	Power plant equip., Bremerton, Wash.	(S)	6-17
7-10	Boilers, etc., Vallejo, Cal.	(S)	6-17
7-14	Elec. equip., New York		7- 1
7-15	Tower, tank, etc., Newman, Cal.	(S.)	7- 8
7-15	Building, Houston, Tex.	(P. & S.)	6-24
7-15*	Dredging, Buffalo, N. Y.	(S.)	6-17
7-15	Ditches, Orlando, Fla.	(S.)	6-24
7-17	Water-wks, Pleasant Hill, O.	(S).	7- 8
7-20	Sewers, Shelbyville, Ind.	(S.)	7- 1
7-24	Engines, etc., Phila., Pa.	(S.)	6-24
7-24	Pavements, Boston, Mass.	(S)	7- 1
7-26*	Pavement, Kenova, W. Va.	(S.)	7- 1
7-27*	Bridge, Clinton, Me.	(P. & S.)	7- 1
7-30	Wasteway, Sunnyside, Wash.	(S)	7- 1
7-31	Buildings, Annapolis, Md.	(S.)	7- 8
7-31	Improv. bldg., Boston	(S.)	7- 8
7-31*	Sidewalk, etc, Galveston, Tex.	(S.)	7- 1
7-31*	Dredging, Galveston, Tex.	(S.)	7- 1
8- 2*	Generating station, Winnipeg, Man.	(P. & S.)	6-10
9- 1*	Park system, Minneapolis, Minn.	(S.)	7- 8

List of Contracts Pending.

LIGHT, HEAT AND POWER PLANTS.

7-10	Elec. motor, etc., La Fayette, Ind.		7- 1
7-10	Power plant equip., Bremerton, Wash.		6-17
7-10	Boilers, etc., Vallejo, Cal.		6-17
7-10	Elec. equip., Philadelphia, Pa.		6-17
7-10	Power plant piping, Boston, Mass.		6-17
7-10	Turbo-alternators, New York.		6-17
7-16	Elec. equip., Delaware, Ohio.		7- 1
7-24	Engines, etc., Philadelphia, Pa.		6-24
8- 2*	Generating station, Winnipeg, Man.		6-10

BRIDGES.

7- 9	Bridge work, Butler, Pa.		7- 1
7- 9	Bridge approaches, Metapedia, Que		6-24
7- 9	Bridge, Mapleville, R. I.		7- 8
7-10	Bridge, Eden, Me.		7- 1
7-10	Bridges, Leesburg, Va.		7- 1
7-10	Bridge, Shelbyville, Ind.		6-24
7-10	Bridge, Hailey, Idaho		5-20
7-12	Bridges, Indianapolis, Ind.		7- 8
7-12	Bridge, etc., Indianapolis, Ind.		7- 8
7-13	Bridges, Frederick, Okla.		7- 1
7-14*	Bridge work, Chicago, Ill.		7- 1
7-14	Bridge, Red Wing, Minn.		7- 1
7-14	Bridge, Danville, Ill.		6-24
7-14	Bridge, Matoy, Okla.		7- 8
7-15	Bridges, Johnstown, Pa.		7- 8
7-15	Bridge, Yankton, S. Dak.		7- 8
7-16	Bridge removal, Bellingham, Wash.		7- 1
7-18	Bridge, Los Angeles, Cal.		6-24
7-18	Bridge, Union City, Pa.		7- 8
7-19	Bridge work, Columbus, Ohio.		7- 1
7-20	Bridge, Cambridge, Ohio.		6-24
7-20	Bridge, Kittanning, Pa.		7- 8
7-20	Bridge, Byesville, Ohio.		7- 8
7-21	Bridges, Cleveland, Ohio.		7- 8
7-27*	Bridge, Clinton, Me.		7- 1
7-28	Bridge repair, Cincinnati, Ohio.		7- 8

BUILDINGS.

7-10	Hospital, Omaha, Neb.		7- 1
7-12*	Post-office, Winchester, Va.		6-10
7-12	School, St. Paul, Minn.		6-17
7-12	Hall of Justice, San Francisco, Cal		7- 8
7-12	Engine house, Charlottetown, P. E. I. (Mfg. Pt.)		7- 8
7-13	Barracks, etc., Nat. Soldiers' Home, Va		6-24
7-14	Post-office, etc., Paducah, Ky.		6-17
7-15*	Buildings, Cuba (Foreign)		5-27
7-15*	Post-office, etc., Newbern, N. C.		6-10
7-16*	Post-office, Corsicana, Tex.		6- 3
7-16	Armory, New York		7- 1
7-16	Court-house, New London, Conn.		7- 1
7-17	Home, Marysville, Ohio		7- 1
7-21*	Post-office, Shenandoah, Iowa.		6-24
7-21	School, Clay City, Ind.		7- 8
7-24	School, Arlington, Ind.		7- 8
7-24	Quarters, etc., Annapolis, Md.		7- 1
7-24	Building, New York		7- 1
7-26*	Post-office, Platteville, Wis.		6-24
7-27	Post-office, Owensboro, Ky.		6-24
7-28	Masonic temple, Sharon, Pa.		6-17
7-28	Post-office, Hudson, N. Y.		7- 1
7-29*	Post-office, Belleville, Ill.		7- 1
7-31	Improving bldg., Boston, Mass.		7- 8
7-31	Hospital bldgs., Annapolis, Md.		7- 8
8- 2	Post-office, Eagle Pass, Tex.		7- 8
8- 3	Post-office, Council Bluffs, Ia.		7- 1
8- 4*	Post-office, Bowling Green, Ky.		7- 1

WATER-WORKS.

7- 9	Water-pipe, West Carthage, N. Y		6-17
7-10*	Wasteway, Sunnyside, Wash.		5-27
7-12	Water pipe, Boston, Mass.		7- 8
7-10	Water system, Logan, Ohio.		7- 1
7-14	C.-i. pipe, etc., Moultrie, Ga.		6-24
7-14	Pumps, New York		6-24
7-14	Water mains, Brooklyn, N. Y.		6-24
7-14	Water pipe, etc., Braintree, Mass.		7- 8
7-14	Pipe tunnels, Buffalo, N. Y.		7- 8
7-15*	Tower, tank, etc., Newman, Cal.		7- 8
7-15*	Water-works, Delta, Ohio		6-24
7-16	Filtration plant, Ft. Collins, Colo.		7- 8
7-17	Water-works Pleasant Hill, O.		7- 8
7-17	Dam, c.-i. main, Pulaski, Va.		7- 8
7-19	Water system, Madera, Cal.		7- 1
7-20*	Pumps, New York		7- 1
7-22*	Water-works system, Mount Morris, N. Y.		7- 8
7-26*	Filter plant, Burlington, N. J.		6-24
7-27*	Pumping engine, Providence, R. I.		7- 8
7-30	Wasteway, Sunnyside, Wash.		7- 1

SEWERS.

7- 9*	Sewer, Louisville, Ky.		6-17
7-10*	Sewers, Albuquerque, N. Mex.		5-27
7-12	Sewer, Marinette, Wis.		7- 8
7-12	Sewer, Dayton, Ohio		7- 8
7-12	Sewers, Glassport, Pa.		7- 8
7-13	Sewers, etc., New York		7- 8
7-14	Sewer, Oakland, Cal.		7- 8
7-14	Sewer, Dallas, Tex.		7- 8
7-15	Sewer system, Elizabethton, Tenn		7- 8
7-15	Sewers, Prophetstown, Ill.		7- 8
7-16*	Sewer outlet, Fort Hancock, N. J.		6-24
7-16	Sewer extension, Kokomo, Ind.		7- 1
7-17	Sewerage connections, Oxford, Ohio		7- 1
7-20	Sewer system, Shelbyville, Ind.		7- 1
7-20	Sewers, New York, N. Y.		7- 8
7-27	Sewers, Mobile, Ala.		7- 8

STREETS AND ROADS.

7- 9	Road impvt., Cincinnati, Ohio.		7- 1
7- 9	Road, New Middletown, Ohio.		7- 1
7- 9	Sidewalks, etc., Salt Lake City, Utah		7- 1
7- 9*	Paving brick, Bridgeport, Conn.		7- 1
7- 9*	Pavement, Watertown, N. Y.		7- 1
7- 9	Road, Kokomo, Ind.		6-24
7- 9*	Stone road, Elizabeth, N. J.		6-24
7- 9	Paving, Pittsburg, Pa.		7- 8
7-10*	Street impvt., Dalton, Ohio.		6-17
7-12*	Road, Camden, N. J.		6-24
7-12	Road, Jeffersonville, Ind.		6-24
7-12*	Paving, Newburgh, N. Y.		6-24
7-12	Road, Ada, Minn.		7- 1
7-12	Road, Brazil, Ind.		7- 1
7-12	Grading, etc., Glencoe, Minn.		7- 1
7-12*	Paving, etc., Dover, Del.		7- 1
7-12	Pavement, Upper Alton, Ill.		7- 1
7-12	Paving, Ft. Dodge, Ia.		7- 8
7-12	Grading, etc., Paterson, N. J.		7- 8
7-13	Grading, East Liverpool, Ohio.		7- 8
7-13	Paving, etc., New York		7- 8
7-13	Road, Kokomo, Ind.		7- 1
7-14*	Road, Freehold, N. J.		6-24
7-14	Street impvt., Piqua, Ohio.		7- 1
7-14*	Paving, etc., Catskill, N. Y.		7- 1
7-14	Grading, Cleveland, Ohio.		7- 8
7-15	Road, Huntington, Ind.		7- 8
7-15	Macadam, Elizabethton, Tenn.		7- 8
7-15	Paving, Birmingham, Ala.		7- 8
7-15	Roads, Huntington, Ind.		6-24
7-15	Walks, Fort Riley, Kan.		6-24
7-17*	Paving, Orrville, Ohio		6-24
7-17	Roads, Scottsburg, Ind.		7- 1
7-19	Roads, Bedford, Ind.		7- 1
7-19	Paving, Aberdeen, S. Dak.		7- 8
7-19	Paving, Latrobe, Pa.		7- 8
7-19	Turnpike, Steubenville, Ohio.		7- 8
7-20	Stone road, Wilmington, Del.		7- 8
7-21	Paving, etc., Canton, Ohio.		7- 8
7-23	Pike, Cincinnati, Ohio.		7- 8
7-24	Pavements, Boston, Mass.		7- 1
7-26*	Pavement, Kenova, W. Va.		7- 1
7-26	Paving, Huntington, W. Va.		7- 8
7-27	Paving, etc., Mobile, Ala.		7- 8
7-31*	Sidewalk, etc., Galveston, Tex.		7- 1
8- 2	Gravel road, Danville, Ind.		7- 8
8- 2	Macadam, Morristown, N. J.		7- 8

MISCELLANEOUS.

7- 9	Drilling machines, Transvaal (Foreign)		5-27
7- 9	Wharf, Ft. Morgan, Ala.		7- 1
7- 9	Ditches, Hampton, Iowa.		7- 8
7-10	Riprap, Dayton, Ohio		7- 8
7-10	Air compressors, Washington, D. C.		6-17
7-12	Dredging, Detroit, Mich.		7- 1
7-12	Dams, Port Arthur, Ont.		7- 8
7-12	Culverts, South Bend, Ind.		7- 8
7-12	Wharf, New Orleans, La.		7- 8
7-13	Stone monuments, New York.		7- 8
7-13*	Barge canal, Albany, N. Y.		6-24
7-14*	Hydraulic jacks, Chicago, Ill.		7- 1
7-14	Ballast, Ft. Leavenworth, Kan.		7- 1
7-14*	Riprap, Boston, Mass.		7- 8
7-15	Ditch, Prairie Creek, Ill.		7- 8
7-15	Drainage, Muscatine, Iowa.		7- 8
7-15	Sprinkling oil, New York.		7- 1
7-15*	Dredging, Buffalo, N. Y.		6-17
7-15	Ditches, Orlando, Fla.		6-24
7-17	Flagstaffs, St. Louis, Mo.		7- 8
7-20	Levee, Dardanelle, Ark.		7- 8
7-21	R. R. bridge, etc., Ohio (Rys.).		7- 1
7-21*	Dredging, dock work, Chicago.		7- 8
7-22	Wharf, Moncton, N. B.		7- 8
7-22*	Parade Ground fill, Fort Monroe Va.		6-24
7-26*	Dredging, Detroit, Mich.		7- 1
7-27*	Jetty, Wilmington, Del.		7- 8
7-28*	Lock pit, Detroit, Mich.		7- 1
7-31*	Dredging, Galveston, Tex.		7- 1
7-31*	Dredging, Galveston, Tex.		7- 8
8-18	Battleships, Washington, D. C.		6-24
9- 1*	Park system, Minneapolis, Minn.		7- 8

EXAMINATIONS.

7-14	Lab. Helper, Wash., D. C.		7- 1
7-14	Draftsmen, Washington, D. C.		6-24
7-14	Arch. Draftsman, Wash., D. C.		6-24
7-21	Engr., Washington, D. C.		6-24
7-21	Designer, Philippines		7- 1
8- 3	Asst. Engr., New York, N. Y.		6-24

RAILWAYS.

(denotes that this work is advertised in Engineering News.)*

ARGENTINE CENTRAL.—The ownership of the Argentine Central Ry. has passed from E. J. Wilcox, its builder, to a syndicate of Denver businessmen and capitalists. The syndicate is composed of Gov. John F. Shafroth, Mayor R. W. Speer, W. W. Booth, R. H. Malone, A. J. Woodruff, and other prominent Denver men. The new owners plan to extend the railroad from its present terminus at Mt. McClellan, to the summit of Gray's Peak, which, it is said, will make it the highest railroad in operation in the world. E. J. Tuttle, 314 Colorado Bldg., Denver, will be Gen. Mgr. The Argentine Central is now in operation between Silver Plume and Mt. McClellan.

ARKANSAS.—The Pine Bluff (Ark.) Board of Trade is raising $50,000 for the purpose of securing an extension of the Saline River Ry. into Pine Bluff. C. E. Emmert is Secy. and Supt. of the Saline River Ry., at Draughton, Ark.

ATCHISON, TOPEKA & SANTA FE.—See Pecos & Northern Texas Ry.

ATLANTA, BIRMINGHAM & ATLANTIC.—The receivers of this company have been authorized to issue $3,250,000 of receivers' certificates to complete the extension to Birmingham, Ala., and the line to Mulga; to improve the Brunswick and the Birmingham divisions; to buy new equipment, etc., besides settling claims. H. M. Atkinson and S. F. Parrott are the Receivers, Atlanta, Ga. C. L. Dimon is Asst., 32 Broadway, New York.

AUGUSTA, GREGORY & SOUTHERN.—This company probably will let contracts this fall for building its proposed line. It will run from Augusta to Gregory, Ark., thence to a connection with the Great Northwestern R. R., a total distance of 14 miles. The last 2½ miles, over bottom lands, will require trestle and embankment 10 ft. high. Surveys have been made and right-of-way is about one-half secured. Harry N. Pharr, of Memphis, Tenn., is Engr.-in-Charge. J. L. Conner is Pres.; Alexander Campbell, Secy. and Treas. Other directors are Minor Gregory, Ed Roddy, I. J. Stacy, H. M. Woods, T. E. Bonner and R. K. Fitzhugh.

BALTIMORE & OHIO.—It is stated that $300,000 will be spent upon improvements at Benwood Junction, W. Va. W. C. Loree is Gen. Supt., Wheeling Division, Wheeling, W. Va.

CRYSTAL CITY & UVALDE.—We are officially advised that contract for building this railroad from Uvalde to Crystal City, Tex., 42 miles, has been let to J. A. ANDREWS & SON, Beaumont, Tex. Twelve miles are graded. It will connect at Uvalde, Tex., with the Southern Pacific Ry. A. R. Ponder is Pres. and Gen. Mgr., at Uvalde, Tex. Noted on June 17.

FLORIDA.—Richard Tillis, of Montgomery, Ala., is interested in a plant to raise $250,000 to build a railroad from Pensacola, Fla., to Andalusia, Ala., 70 miles, provided an equal amount is raised at Pensacola for this connection with the Central of Georgia Railway. C. A. O'Neal, of Andalusia; J. R. McCain, W. K. Hyer, W. A. Blount, F. C. Brent and W. H. Knowles, all of Pensacola, are also interested.

GILPIN & CLEAR CREEK DISTRICT.—We are officially informed that this company is doing its own construction work under the title of the HALL CONSTRUCTION CO. The railway will connect Pactolus and Central City, 25 miles. Two miles are graded and work is progressing at rate of one mile a week. Surveys are made and right-of-way and capital are secured. R. A. Hall is Pres., and H. Van Law is Ch. Engr., both at 605-611 Mercantile Bldg., Denver. Work is through a mountainous section. Noted under "Colorado" on June 10.

GRAND TRUNK PACIFIC.—Contract has been awarded to FOLEY, WELCH & STEWART, of St. Paul, Minn., for construction of about 200 miles of railway for this company, west of the McLeod River.

LAURINBURG & SOUTHERN.—We are advised by John F. McNair, Pres., Laurinburg, N. C., that contract has been let for building this railroad from Johns, via Laurenburg to Wagram, 18 miles; six miles are already constructed. The contractors are COLE & MORRISON. Surveys are made and capital secured. Right-of-way is partly obtained. J. B. Huske is Ch. Engr., Laurinburg.

LEMHI & SALMON VALLEY.—Incorporated in Idaho by officials of the Oregon Short Line R. R. Co., with $5,000,000 capital, to build from Cerro Grande, Idaho, on the Oregon Short Line, northerly through the valleys of Birch Creek and the Lemhi River to Salmon City, thence northerly and westerly along the valley of the Salmon and Snake Rivers to Lewiston, 428 miles, with a branch from Salmon City south to Challis, 52 miles; also from a suitable point to Grangeville, and from the main line near Kaufman southeast to the Oregon Short Line, between Market Lake and Camas station.

LONG ISLAND R. R.—See under Electric Railways, "Long Island City, N. Y."

MARSHALL & EAST TEXAS.—We are officially informed that contract for grading this line has been let to JOHN SCOTT & SONS, Times Bldg., St. Louis, Mo. The railroad company is doing its own track and bridge work. Surveys are now in progress and right-of-way has been secured for distance of 18 miles. As noted on June 17, this line will run from Marshall, Tex., to Newton, 125 miles. Twelve miles are now under construction. A. T. Perkins is Pres., 401 Locust St., St. Louis, Mo.; R. J. Lockwood is Ch. Engr., and J. E. Votaw is Gen. Supt., Marshall, Tex.

MISSOURI RIVER, CARROLLTON & NORTHWESTERN.—Surveys are under way for this proposed line which is to run from the Missouri River through Carrollton, Mo., and thence in a northwestern direction, and will be about 60 miles in length. It is proposed to connect with the Milwaukee, Burlington, Santa Fe, and Wabash systems. Herndon Ely, Carrollton, Mo., is Pres.; L. B. Ely, St. Louis, Mo., Vice-Pres.; Peter L. Trotter, Carrollton, Second Vice-Pres. and Treas.; W. P. Painter, Carrollton, Secy.

NEVADA-CALIFORNIA-OREGON RY.—Company contemplates the expenditure of more than $5,000,000 on the improvement of this railway, which will include the extension of the line from Alturas, Cal., to The Dalles, on the Columbia River, in Oregon, as a standard-gage line, and to make the entire system from Altura to Reno, Nev., a standard-gage line. The extension of the line from Alturas to Lakeview, Ore., may commence within the next three months. Before this work is well under way the improvement of the entire system will be commenced. Geo. S. Oliver is Ch. Engr., Reno, Nev.

NEW YORK CENTRAL & HUDSON RIVER.—This company plans to spend $21,488,755 in the current year for various improvements in New York State. Among the improvements contemplated are: Electrification of lines and station improvements in New York and vicinity, $8,477,682; grade crossing elimination at Buffalo, $1,412,000; at Rochester, $119,000; electrification of West Shore line between Syracuse and Utica, $130,000; double tracking and grade revision, West Shore, between Syracuse and Buffalo, $750,000; new passenger station at Watertown, $260,000.. double tracking Rome, Watertown, & Ogdensburg division, between Watertown Junction and Adams, $339,000; yard and engine house at Brewster, $330,000; improvements at Poughkeepsie, $319,000; automatic signals between Croton and Buffalo, $289,000; improvements at West Albany, $525,000; equipment, $3,775,552.

NORTH MISSOURI CENTRAL.—We are officially advised that the FRANKLIN CONSTRUCTION CO., Frisco Bldg., St. Louis, Mo., has been awarded the contract for the North Missouri Central R. R., running from Jefferson City to Columbia through Mexico, Mo., a distance of about 63 miles. The contract involves about $1,800,000. The Franklin Co. is in the market for about 160,000 oak or pine standard ties, about 6,300 tons of 60-lb. relaying rails, also spikes, bolts, etc. N. Boardman is Gen. Mgr.

PECOS & NORTHERN TEXAS (Santa Fe System).—Contract has been awarded to the C. H. SHARP CONTRACTING CO., Kansas City, Mo., for grading and bridging on 176 miles of line between Coleman, Tex., northwest via Buffalo Gap, Sweetwater, Snyder and Post City to Lubbock, Tex., 200 miles; contract for the remaining 24 miles being let to A. MOORE, of Newton, Kan., and F. H. HARRIS, Amarillo, Tex.

Contract has been let to A. MOORE and F. H. HARRIS for 47 miles of line from Plainview, Tex., to Lubbock, which is under construction. G. W. Harris, Amarillo, Tex., is Ch. Engr. of Construction.

PENNSYLVANIA R. R.—The H. E. CULBERTSON CO., Citizens' Bldg., Cleveland, Ohio, has been awarded sections Nos. 6 and 7 on the Logansport Division on the Pennsylvania R. R. between Dunkirk and Gas City, Ind. The Culbertson Co. will sub-let portions of the work, and may be addressed at Hartford City, Ind.

The following contracts have been awarded it is announced, for grade reduction and second-track work between Bradford, Ohio, and Logansport, Ind.: C. A. SIMS & CO., Philadelphia, Pa.; the FRANCE CO., Bloomville, Ohio; JONES BROS., Cincinnati, Ohio; H. E. Culbertson, Cleveland, Ohio; the ESSEX CONSTRUCTION CO., Buffalo, N. Y.; the STURM & DILL CONSTRUCTION CO., Columbus, Ohio; OLIVER & CALLAWAY, 171 La Salle St., Chicago, Ill. The work includes 1,500,000 cu. yds. of earth excavation and embankment, 39 bridges all masonry and steel of 10-ft. span and over, 23,000 cu. yds. of concrete masonry and 1,000 cu. yds. of stone masonry.

SOUTHERN PACIFIC R. R. OF MEXICO.—This company has filed articles of incorporation in New Jersey. Company is formed to take over concessions from the Mexican Government for the construction and operation of about 1,500 miles of railroad. The concessions were granted in 1905 and 1907

to the Southern Pacific Co. and the Concessionaire Railroad Co., and in 1907 to Tomas Macmanus and A. H. McKay, as attorneys for the Cananea, Yaqui River & Pacific R. R. The company has an authorized capital stock of $75,000,000. The incorporators are Charles C. Tegethoff, George E. Downs, William S. Johnson and Charles Franklin, of New York; and Robert B. McCreary, of Elizabeth, N. J. The company has also concessions for the operation of telephone and telegraph lines. The principal routes are set forth in the charter as follows: Navajoa, State of Sonoro, to Culiacan, 220 miles; Culiacan to the port of Mazatan, 139 miles; Mazatlar to Tepic, 191 miles; Tepic to Guadalajara, 180 miles; Naco, on the boundary of the United States and Mexico, to Cananea, 38 miles; Nogales, also on the boundary line, to Del Rio Station, 77 miles; Empalme, following the Yaqui and Bavispe Rivers, to Douglas, on the Arizona boundary, 456 miles; Corral, on the boundary line, to Alamos, 91 miles; Nacozari, following the Mactezuma River to its junction with the Yaqui River, 111 miles. The Southern Pacific Co. will receive subsidies from the Mexican Government aggregating about $10,000,000. In addition to the new lines it is reconstructing an old road between Nogales and Guaymas, 263 miles long, the total length of its Mexican system thus being about 1,775 miles, of which about 800 miles is not yet completed. The total cost, including equipment, has been estimated at about $70,000,000. The entire expense thus far has been financed by the Southern Pacific Co.

WESTERN OF GEORGIA.—IRA L. McCORD, 42 Broadway, New York, has been awarded contract for this proposed line. As noted on May 20, the company was chartered in Georgia with $500,000 capital to build a line 60 miles long connecting with the Atlanta, Birmingham & Atlantic Railway at Aberdeen, Ga., and running thence westerly to Newman and Franklin to a point on the State boundary. Headquarters will be at Newnan, Ga.

ELECTRIC RAILWAYS.

LONG ISLAND CITY, N. Y.—The complete plans for improvements on the western lines of the Long Island Railroad, as outlined by P. H. Woodward, Secy. to President Ralph Peters, comprise the electrification and double-tracking this year of all the passenger routes west of Hempstead and the operation of through electric trains by way of the Pennsylvania tunnels, to the terminal at Seventh Ave. and 32d St., Manhattan Boro., New York, according to the New York "Tribune." The electric trains already in operation all have their present terminus at the Flatbush Ave. station. Within a few months work will be completed on the first division from the tunnel entrance at Long Island City to Jamaica, with a spur from the main line to Woodhaven Junction. The present passenger road by way of Glendale and Maspeth will then be used wholly for freight transportation. As soon as this division is electrified, work will be begun on the double-tracking and electrifications of the North Shore division and branches. The company has already selected the site for an immense power house between Winfield and Elmhurst, and will begin work on the erection of this building in the near future. The station will supply much of the power for 14 miles of tracks between Winfield Junction and Port Washington, and twelve miles of tracks between Whitestone, Malba, College Point and the Pennsylvania tunnels to Manhattan. The cost of track improvements on the North Shore division alone will be close to $1,200,000. On the lines running from Long Island City through Flushing to Port Washington and from the tunnel entrance through Malba to Whitestone Landing, a total of 100 trains are operated daily. With the completion of the projected improvements, the service will be increased 50 per cent., and from ten to twenty minutes will be cut from the running time. The electrification and double-tracking of the remaining lines of the western division of the railroad will be begun in 1911. (See item under "Railways" in issue of May 13.)

CARLISLE, PA.—The Cumberland Railway Co., which was organized here recently to build a trolley road from a point several miles east of Carlisle, through Carlisle to Newville, has purchased the Carlisle & Mount Holly Ry., and will extend it through Carlisle by way of Pomfret, West and Louther Sts. to Newville. New officers have been elected for the reorganized Cumberland Railway Co., as follows: Pres., John Graham, Newville; Secy. J. Kirk, Bosler, Carlisle. Treas., Walter Stuart. Supt. and Gen. Mgr., W. F. Pascoe. Noted on June 17.

MARS, PA.—Charter has been applied for by the Rochester & Mars St. Ry. Co. The final survey has been completed, right-of-way and franchises have been obtained and construction contracts will be let soon after the charter is issued in July. The new road will extend from the Baltimore & Ohio depot at Mars, west through Adams and Cranberry Townships, Butler County, and North Sewickley and Rochester Townships, Beaver County, to Rochester, a distance of 23 miles. At Mars connection will be made with the Pittsburg & Butler Street Railway; at Ogle, two miles west of Mars, with the Pittsburg, Harmony, Butler & New Castle Railway, and at Rochester with the Beaver Valley Traction system. J. H. Barrett is Pres. and Ch. Engr.; W. H. Boggs, Treas.; D. R. Torrence, Secy., all of Pittsburg.

PITTSBURG, PA.—Surveys are being made for the Pittsburg & Suburban R. R. Co.'s proposed line, which will connect Pittsburg and Carnegie, Pa., Steubenville, Ohio, 40 miles. Contracts will not be let soon, as all franchises have not been secured. J. Toner Barr, 237 Fourth Ave., Pittsburg, is Ch. Engr. Noted on April 29.

SOUTHAMPTON, PA.—The Philadelphia Suburban Traction Co., recently chartered, proposes to build an electric railway from Southampton, through Davisville and Johnsville, to Hatboro, 3½ miles. Capital stock, $25,000, of which $7,000 is issued. Headquarters, 1328 Chestnut St., Philadelphia. W. E. Watts, Williamstown, N. J., is Pres.; John L. Grogan, Philadelphia, Vice-Pres.; W. J. Cooley, Philadelphia, Secy.; H. C. Case, Newton, Treas.; J. E. Bonnell, Philadelphia, Gen. Mgr.; W. A. Merrick, Newton, Ch. Engr.

NASHVILLE, TENN.—The Nashville Railway & Light Co. has been granted authority to amend its charter to permit it to make a number of extensions and improvements in and around Nashville. It is proposed to construct lines to connect Goodlettsville, Nolensville, Paradise Ridge, Una, Belle Meade, Old Soldiers' Home, Masonic Widows and Orphans' Home, Franklin, Bordeaux and other places. Percy Warner is Pres. and Mgr.

BATTLE CREEK, MICH.—C. E. Flynn, Erie, Pa., Pres. of the Battle Creek, Coldwater & Southern Ry. Co., advises us that contracts will be let this summer for building this railway from Battle Creek southeast to Coldwater, Mich., a distance of 28 miles. Surveys are partly made. Right-of-way is secured and capital practically so.

IRONWOOD, MICH.—The Twin City General Elec. Co. will extend its line from Ironwood to Bessemer and Wakefield, 15 miles. Surveys are made and right-of-way and capital are ready. E. D. Nelson is Pres. and Gen. Mgr., Ironwood.

YORKVILLE, ILL.—We are officially advised that the Yorkville & Morris Elec. R. R. Co., which will build an electric railway from Yorkville to Morris, Ill., 22 miles, via Lisbon, will let construction contracts very soon. Company desires to make financial arrangements with some company regarding first mortgage bonds. Survey is made and right-of-way partly obtained. H. G. Palmer, Aurora, Ill., is Pres. and Ch. Engr. Noted on June 10.

DES MOINES, IOWA.—Articles of incorporation of the Iowa & Omaha Short Line Railway have been filed. Capital, $1,000,000. The line will run between Des Moines, Council Bluffs and Omaha. Its line will run through Pottawattamie, Shelby, Audubon, Guthrie, Dallas and Polk Counties, in Iowa, and Douglas County in Nebraska, a total of 140 miles. Headquarters of the company will be at Pierre, S. Dak., in the office of John A. Holmes, but a business office will be operated at Walnut, Iowa. The incorporators of the company, with the exception of Mr. Holmes, are residents of Treynone, Adaira and Walnut.

CLINTON, OKLA.—M. L. Holcomb, a director, confirms the statement that the Clinton Street Railway Co. and the Clinton Railway Construction Co. have been incorporated by him and others, the former to build a line and operate it and the latter to do the actual work. Ultimately it may be extended into the country. The directors are M. L. Holcomb, C. W. Goodwin, R. O. Hunt, E. A. Humphrey, C. H. Lamb, E. N. Tittsworth, A. N. Curry and B. M. Littell, all of Clinton, Okla.; and H. Smith of Arapahoe, Okla. Noted on April 22.

ARDMORE, OKLA.—The Ardmore Commercial Club has accepted the proposition of Oscar O. Ayres, representing C. F. Clarke & Co., of Philadelphia, Pa., to build a line to use steam or electricity as its motive power, from Ardmore, Okla., north. Company has not yet been organized to build the proposed standard gage railway which is to extend from Ardmore to Chickasha, Duncan and Fort Sill, 170 miles. Arrangements have been completed for nearly all of work. Electricity will be used for hauling the right-of-way and other preliminary passengers and light freight, and steam will be used for heavy freight service. It is proposed to build a water-power plant on the Washota River, M. T. Forsythe, West Chester, Pa., is Engr.

SHAWNEE, OKLA.—The Shawnee Electric Railway Co. will be ready within two months to begin construction of its proposed line from Shawnee to Oklahoma City, 38½ miles, via Dale, McLoud, Harrah and Choctaw City. C. T. Edwards is Pres.; A. Hargrave, Vice-Pres. and Gen. Mgr.; R. E. Pugh, Secy. and Treas., all at Shawnee. Company was recently incorporated with $100,000 capital to build two lines of interurban railway: one from Shawnee via Prague and Okmulgee, to Muskogee, 120 miles; and another from Shawnee to Oklahoma City, 38½ miles; the first to cost $3,000,000 and the second $1,000,000. Incorporators are C. T. Edwards, A. Hargraves, C. E. Easterwood, R. E. Pugh and W. S. Pendleton, all of Shawnee, Okla. They also chartered a construction company with $10,000 capital.

FRESNO, CAL.—Contract, it is reported, for building the Fresno, Hanford & Summit Lake Interurban Ry. has been awarded to the FRANKLIN CONSTRUCTION CO. The line will connect Fresno and Hanford. F. S. Granger is Vice-Pres. and Gen. Mgr., Fresno. As officially noted on Nov. 19, this line will be a "standard-gage electric railway from Fresno, passing through Colma, Malaga, Fowler, Selma, Kingsburg and Laton, the southern terminus being Hanford. It will pass through a fruit raising district. It will be about 40 miles in length. The overhead trolley system will be adopted. It is planned to build the main power station at Kingsburg and its substations at Malaga and Laton, and also plans to build and operate two amusement resorts, one at Laton and the other on Kings River, a few miles east of Laton. Capital stock, $1,000,000. Surveys are made and right-of-way obtained. Officers: L. A. Lares, Fresno, Pres.; F. S. Granger, Hanford, Vice-Pres. and Gen. Mgr.; J. D. Biddle, Hanford, Secy. Chadwick & Sykes, Crocker Bldg., San Francisco, are Ch. Engrs." We are officially advised that active construction will begin about Sept. 1. Edgar C. Smith, Y. M. C. A., Bldg., Fresno, is Engr.

SAN FRANCISCO, CAL.—The ordinance to issue $1,950,000 of bonds to cover the cost of reconstructing the Geary Street, Park & Ocean R. R. and extend the line to the Cliff as a municipal enterprise, was voted upon on June 24, and the proposal was defeated. The franchise of the Geary Street, Park & Ocean R. R. expired in 1906.

LIGHT AND POWER PLANTS.

(* *denotes that this work is advertised in Engineering News.*)

BOSTON, MASS.—Bids were received on June 28 by Guy C. Emerson, Supt. of Streets, for lighting the city's streets, parks and alleys with gas incandescent mantle lamps for five years. The Greater Boston Illuminating Co. will do the work and furnish gas on a basis of 12,000 lamps at a cost of $236,790 per year as against a cost of $266,600 for the vertical lamps and $271,240 for the inverted lamps as bid by the Rising Sun Street Lighting Co.

PAWTUCKET, R. I.—We are officially advised that the Blackstone Valley Gas & Electric Co. has begun the construction of a 13,000-volt transmission line of 1,000-KW. capacity from the south station in Pawtucket to Station No. 1, Woonsocket, together with new transformer stations at both ends. The design and construction is in charge of the Stone & Webster Engineering Corporation, 147 Milk St., Boston, Mass.

NEW YORK, N. Y.—Plans for the substation to be erected by the New York Edison Co. at 49 West 26th St. have been finished. Construction will be of brick and steel. The building will be four stories high, 50 × 100 ft., and will cost about $150,000. The plans for this building have been prepared by the owners' engineering force.

FRANKLINVILLE, N. Y.—The Empire Electric Co. is making additions and improvements to its plant, which include the installation of a 375-KW. alternator, a 500-HP. engine, and 200-HP. boiler with Roney stokers. G. W. G. Ferris is Treas. and Mgr.

ORANGE, N. J.—The City Council on June 21 appointed Runyon & Carey, 122 Market St., Newark, as Consult. Engrs. for the proposed municipal electric light plant. Cost, $60,000.

IRVINGTON, N. J.—Bids will be received by Town Council in September for installing a municipal lighting plant; also for furnishing town with electric light and gas on a 1, 3, 5 and 10-year contract.

HANOVER, PA.—The Hanover Light, Heat & Power Co. has placed a contract with the GENERAL ELECTRIC CO., of Schenectady, N. Y., for one 300-KW. motor-generator set, with switchboard panels, arranged to feed the railway service and reversed for supplying 2,200 volts for lighting service. Robert E. Manley is Mgr.

BASIC CITY, VA.—The contract for the construction of the municipal hydro-electric plant has been awarded to the MORRISON MACHINERY AND SUPPLY CO., of Richmond, Va., for $20,000. W. M. Page is City Treas.

SAVANNAH, GA.—We are officially advised that the Savannah Electric Co. has contracted with the STONE & WEBSTER ENGINEERING CORPORATION, 147 Milk St., Boston, Mass., for the installation of a 1,000-KW. turbine and auxiliaries in the Indian St. station. M. L. Sperry, Savannah, is Mgr.

COLUMBUS, GA.—We are officially informed that the Columbus R. R. Co., Columbus, Ga., has ordered the STONE & WEBSTER ENGINEERING CORPORATION, 147 Milk St., Boston, Mass., to carry out reconstruction on the City Mills Plant, to provide a station capacity of 600-KW., 2,300-volt, alternating-current and 200-KW. railway direct-current. The work will include replacing of two wheels and installation of a new 2-phase alternator with auxiliaries.

MADISONVILLE, KY.—Plans are being considered for extensions and improvements to the municipal electric lighting plant, including the installation of a 200-KW. generator, an engine and 150-HP. boiler. E. B. Robards is Mgr.

VALLEY VIEW, KY.—Plans are being made by the Lexington Interurban & Railways Co. for construction of its proposed power plant at Valley View, work on which will be started soon. Electricity generated at the plant will be transmitted to Lexington, Ky., where it will be utilized for the interurban railways and commercial lighting. The cost of the plant is estimated at $250,000. I. L. Oppenheimer is Gen. Mgr.; J. G. WHITE & CO., 49 Exchange Pl., New York, N. Y., are engineers and contractors.

HIGHWOOD, ILL.—The Chicago & Milwaukee Electric R. R. Co. has let contracts to the GENERAL ELECTRIC CO., of Schenectady, N. Y., for one 1,500-KW., 25-cycle, 600-volt rotary converter, three air-blast 13,200-volt to 430-volt 185-KW. transformers, together with the necessary reactive coils, oil switches and switchboard panels.

KANKAKEE, ILL.—Arrangements are being made by the Kankakee Electric Light Co. for the construction of an electric plant with an output of 300 HP. at its dam in this city. The proposed plant will be operated in conjunction with its present plant, which now develops 1,000 HP. Steam power will be used as an auxiliary to the water-power plant. The company recently closed a large contract with the FOLEY-WILLIAMS MFG. CO. to furnish electricity for operating its plant. J. S. Maltman, Kankakee, is Supt.

FAIRFIELD, IOWA.—It is stated that the Fairfield Gas & Electric Co. will expend about $25,000 in improvements. C. H. Norwood, Fisher Bldg., Chicago, Ill., is Engr.; H. C. Stevenson is Supt.

*DELPHOS, KAN.—We are officially advised that bids were received June 22, by the City Clerk for constructing a system of water-works and an electric light plant. J. R. Adams is Mayor. The J. S. Worley Co., Kansas City, Mo., Engr. The contract has been awarded to the SQUIRES ELECTRIC CONSTRUCTION CO., 614 Wyandotte Ave., Kansas City, Mo. Otto gas engines and Ft. Wayne electric equipment will be used. Total bid, $26,941.

LINDSBORG, KAN.—Plans are being considered for installation of a 100-HP. engine, a 150-KW. alternating-current 2-phase generator, in the municipal electric light plant. M. H. Blaine is Supt.

RIFLE, COLO.—At a recent meeting of the directors of the Rifle Light, Heat & Power Co., the bids for the construction of the proposed power plant were considered and the contract was let to C. W. FRAVERT. Work on the plant will begin at once. Rock for the foundations and poles for the line will be gotten out first while the machinery and water-wheel are being constructed. The plant when complete will cost in the neighborhood of $35,000. The contract calls for its completion by the first of December.

PORT ORCHARD, WASH.—The Board of Control has awarded contracts for the construction of the administration building and power plant at the Veterans' Home, at Port Orchard. The contract for the building was awarded to LANCE & PETERS, Oriental Bldg., Seattle, for $28,800, and for the installation of heating plant and construction of power-house to the SEATTLE HEATING & PLUMBING CO., 902 Post St., for $22,250.

SEATTLE, WASH.—Stone & Webster, of Boston, Mass., are planning to secure additional water power and build a new plant to supply power for the Seattle and Everett line.

PROSSER, WASH.—The Prosser Power Co. will begin soon the construction of the power plant, which will develop 15,000 HP.

ESTACADA, ORE.—The Portland Electric & Transmission Co. will erect a large power plan and sawmill on its site, a half mile west of here.

KINGSTON, ONT.—We are officially advised that the contract for reconstruction of the city gas tank and holder has been let to EDWARD B. MERRILL and LUCIUS E. ALLEN, of Toronto, Ont., at $4,500. H. B. R. Craig is City Engr.

SAN FRANCISCO, CAL.—The contract for street lighting during the coming fiscal year was awarded by the Artificial Lights Committee of the Board of Supervisors to the SAN FRANCISCO GAS & ELECTRIC CO., Franklin and Ellis Sts., the only bidder, at a figure which will amount to about $340,000. The charge for gas is .06548 cts. per lamp for each night, and for electricity .20712 cts. per lamp a night.

SANTA ANA, CAL.—An application has been made to the Board of Supervisors for an electric lighting franchise, and bids for said franchise will be received until July 7. W. B. Williams is County Clk.

SISSON, CAL.—The Siskiyou Light & Power Co., of Yreka, is surveying in Sisson for the line the company is to run through from Yreka to Dunsmuir to supply light and power to the several towns en route. J. W. Churchill, Yreka, is Pres. and Mgr.

VANCOUVER, B. C.—The Western Canada Power Co., with a capital of $5,000,000, has taken over the plant, franchises, etc., of the Stav Lake Power Co. and will develop the plant to a capacity of 30,000 HP. and supply power for lighting and power purposes to cities along the Pacific Coast.
the construction of ten new bridges.

BRIDGES.

(* *denotes that this work is advertised in Engineering News.*)

*CLINTON, ME.—Bids will be received at the Court House, Augusta, by the Commissioners of the Counties of Somerset and Kennebec until noon, July 27, for building a bridge across the Kennebec River, between the towns of Clinton and Fairfield. The length of bridge will be about 600 ft. in three spans and proposals will be received separately for the masonry and the superstructure. Plans and specifications are on file at the office of Engineering News, New York.

HAVERHILL, MASS.—The Essex County Commissioners opened bids on June 28 for the construction of the southerly approach of the new Haverhill bridge. The bids and bidders were: Manzella & Ross, of Woburn, $26,650; Perini, Little & Bannon, of Boston, $28,828; A. G. Tomassella, of Boston, $32,883; Cashman Bros., of Newburyport, $34,355; Cenedella & Co., of Milford, $34,978; Fletcher-Leahy Co., of West Chelsford, $36,287; Coughlan-Shields Co., of Bostop, $37,127; Richmond F. Hudson, of Melrose, $41,947. James P. Hale is Clk. New bids will be received on July 12.

MAPLEVILLE, R. I.—Bids will be received until July 9 by Town Council of Burrillville, at Harrisville, for constructing a reinforced concrete girder bridge with retaining walls, approaches and parapet walls over the Chepachet River at Mapleville. Seagrave & Lincoln are Engrs., Commercial Bldg., Woonsocket, R. I. John P. Meade is Chn. Com. on Plans and Proposals.

BUFFALO, N. Y.—The contract for constructing a reinforced concrete highway bridge on Northland Ave. (bids opened June 21) has been awarded to TIFFANY & GAIL, 1010 Mutual Life Bldg., Buffalo, for $4,250. Bids were received on June 21. F. G. Ward is Comr. Pub. Wks.

NEW YORK, N. Y.—The following bids were received on July 1 by J. W. Stevenson, Comr. of Bridges, for construction of the Dutch Hunters Point Ave. bridge over the Hunters Point Ave. bridge over the Dutch Kills, in the Boro. of Queens: North Eastern Construction Co., 225 Fifth Ave., New York, $94,914; Phoenix Construction Co., 41 Park Row, New York, $105,901; J. H. Gray Co., Broadway and 23d St., New York, $111,715; Merrill-Ruckgaber Co., 50 Church St., New

York, $114,356; Cooper & Evans Co., 220 Broadway, New York, $101,007; G. M. McLeod, 31 Nassau St., New York, $121,184; Snare & Treist, 143 Liberty St., New York, $102,637; New York & Portchester Contracting Co., $112,530; E. C. Moore, $108,280; Charles E. Fraser Co., 315 Fifth Ave., New York, $97,787; Regnon Realty & Terminal Improvement Co., $104,518; Henry E. Fox, 81 East 125th St., New York, $132,898; Haggerty Contracting Co., 2459 Davidson Ave., New York, $104,977.

JOHNSTOWN, PA.—Bids will be received by the Commissioners of Cambria County until 2 p. m., July 15, for the erection of the following concrete bridges: Bridge across Clearfield Creek at Wildwood, and also across the Blacklick, near Griffith's Mills, Barr Township. Plans and specifications can be seen at the commissioners' office. C. E. Troxell is Clk.

UNION CITY, PA.—Bids are asked by S. B. Stranahan, Secy. Boro. of Union City, until 8 p. m., July 18, for the construction of cement abutments and retaining walls and repairing of the bridge over French Creek on Bridge St., in the Boro. of Union City.

KITTANNING, PA.—Bids are asked until noon, July 20 by County Commissioners at Kittanning for constructing a 95-ft. span steel bridge, over Plum Creek, in Plum Creek Township, also a 40-ft. span bridge over Sugar Creek, in Sugar Creek Township.

*PHILADELPHIA, PA.—Bids are asked until noon, July 21, by George R. Stearns, Dir. Dept. of Public Works, for Schedule A, construction (a) bridge on line of Chelton Ave. under North Pennsylvania R. R., 42d Ward; double track steel plate girder bridge 80-ft. span, on concrete abutments; (b) bridge on line of 62d St. over Philadelphia, Baltimore & Washington R. R., 40th Ward; reinforced-concrete highway bridge 70 ft. wide; (c) bridge on line of Roberts Ave. under Chestnut Hill Branch of Connecting Ry., 38th Ward; 3-track, 3-span steel plate girder bridge on concrete abutments and piers; (d) bridge on line of Hunting Park Ave. under Chestnut Hill Branch of the Connecting Ry., 38th Ward; double track, 3-span steel plate girder bridge on concrete abutments and piers. (e) bridge on line of Hunting Park Ave. under Norristown Branch of Philadelphia & Reading Ry., 38th Ward; double track, 3-span steel plate girder bridge on concrete abutments and piers.

BERKELEY SPRINGS, W. VA.—The County Court has awarded the contract for constructing a steel-truss bridge over Cacapon River, near Wisnerfort, to the OWEGO BRIDGE CO., of Owego, N. Y., at $8,580.

ANDERSON, S. C.—The County Commissioners of Anderson County contemplates constructing a bridge across the Savannah River.

NASHVILLE, TENN.—About $250,000 will be expended by Davidson County for the construction of a bridge here.

UPPER SANDUSKY, OHIO.—We are officially advised that bids were received on June 30 by the Board of County Commissioners for furnishing material and constructing a 140-ft. span steel bridge over the Sandusky River in Pitt Township, known as the Koterman bridge; also separate bids for two stone abutments for the bridge contract for stone work was awarded to WILLIAM HUGHEY, of Nevada, Ohio, and for bridge to HOME ENGINEERING CO., of Canton, Ohio. Contract for a 150-ft. span has been awarded to the MODERN CONSTRUCTION CO., of Fremont, Ohio. J. N. Traxler is County Audr.

TUSCARAWAS, OHIO.—Bids will be received until July 19 by the County Commissioners at New Philadelphia, for constructing a reinforced concrete arch bridge, making a fill thereon and approaches thereto over the Tuscarawas River in Warwick Township, near Tuscarawas. Estimated cost, $35,498. A. V. Donahey is County Audr. The structure is to be of concrete, will have a 20-ft. roadway and will be supported by four 90-ft. arches. It will be built about a quarter of a mile above the site of the present bridge.

BYESVILLE, OHIO.—Bids will be received by the Commissioners of Guernsey County, at Cambridge, until July 20, for an iron or steel bridge to span Wills Creek, Tenth St., in the village of Byesville, on masonry now in course of construction.

CINCINNATI, OHIO.—Bids will be received until July 28 by County Commissioners at Cincinnati, for repairing bridge on Spring Grove Ave., in Millcreek Township, according to Specification No. 917. Fred. Dreihe is Chn.

CLEVELAND, OHIO.—Bids are asked by the County Commissioners at Cleveland until 11 a. m., July 21 for the following bridge work: Report No. 2404, concrete viaduct, Irish Road, Middleburg Township; report No. 2388, concrete bridge, Miles Road, Bedford Township; report Nos. 2396 and 2398, two concrete bridges on Miles Road, Salon Township. William F. Black is Clerk.

The City Engineer is preparing plans for the construction of a bridge to eliminate the New York, Chicago & St. Louis R. R. grade crossing in East 23d St. Estimated cost, $200,000.

TOLEDO, OHIO.—The following bids were received, according to the Toledo "Blade," on July 1, by the Board of Public Service, Reynold Volt, Secy., for a reinforced-concrete arch bridge, except lift draw, with necessary foundations, abutments, piers, etc., over the Maumee River at Cherry St.: The Foundation Co., 115 Broadway, New York, $897,777, the first half of the bridge to be completed within 12 months after signing the contract, and the second half within six months after the first half is completed. The bid was upon alternative plans. P. J. Catlin, New York, bid not computed; bridge to be ready for paving Dec. 1, 1910. The Pneumatic Caisson Co., of Troy, N. Y., on its own alternative plans, $777,777, to be completed Nov. 1, 1911. The bid on the original plans will be considerably higher. The Standard Contracting Co. and the Central Dredging Co., of Cleveland, combined, bridge to be ready for use July 1, 1913, on alternative plans, $657,218, including the removal of present Cherry St. bridge to temporary site during building of new bridge. The C. H. Fath & Sons Co., of Cleveland, submitted a bid for a steel structure, rather than reinforced concrete. The representative said that his bid for a reinforced concrete structure would run up to about $813,000.

INDIANAPOLIS, IND.—Bids are asked by Albert Dahm, County Audr., until 10 a. m., July 12, for the construction of a bridge over Pleasant Run, and five culverts in Marion County. Paul Julian is County Engr., Indianapolis.

DAVENPORT, ILL.—The contract for reflooring and repaving the government bridge between Davenport and Arsenal Island has been let to the KETTLE RIVER QUARRIES CO., of Minneapolis, at about $36,000.

*CATLIN, ILL.—Bids are asked by the Highway Commissioners of Catlin Township and the Bridge Committee of the Board of Supervisors of Vermilion County, Illinois, in the Supervisors' room of the County Court House at Danville, until 2 p. m., July 14, for furnishing the material and the labor for the construction of the Rocky Ford Bridge in Catlin Township. Frank Payne, Daniel Bldg., Danville, Ill., is Engr.

NEENAH, WIS.—The Chicago & North Western Ry. Co. awarded contract for the construction of three steel and concrete double-tracked bridges, one over Little Lake Butte des Morts and two over the Neenah and the Menasha channels of Fox River, to O'KEEFE-ORBISON CONSTRUCTION CO., of Appleton, Wis. Solid concrete abutments, steel caisson bases, and 50-ft. steel spans will be used. Cost, $265,000.

*RED WING, MINN.—Bids are asked by the Red Wing & Trenton Transit Co. until 7.30 p. m., July 19, for filling in pile highway bridge across the Wisconsin Channel of the Mississippi River. A. E. Rhame is City Engr.

YANKTON, S. DAK.—Bids are asked until 8 p. m., July 15, by Helen B. Russell, City Clk., for material and labor for constructing a steel reinforced concrete bridge across Rhine Creek, Burleigh St. Bridge to be 36 ft. long in the clear and 18 ft. roadway, with a 6-ft. sidewalk on the west side, height from bottom of pier foundations to road grade 24 ft., excavations for piers in mixed sand and loam, 8-ft., approximately 125 yds.

KANSAS CITY, MO.—The Board of Public Works has approved plans and specifications for a concrete bridge over Brush Creek at Prospect Ave. Estimated cost, $12,066, of which the city will pay two-thirds and Metropolitan Street Railway Co. one-third. Plans were prepared by the engineers of the railway company. Bids will soon be asked.

HIDALGO, TEX.—Hidalgo County has voted $100,000 bridge and road bonds.

VINITA, OKLA.—The County Commissioners are having plans prepared for the construction of several bridges in the county. Estimated cost about $35,000.

MATOY, OKLA.—Bids will be received until July 14 by County Commissioners at Durant for constructing the superstructure of a 55-ft. steel bridge over Boise D'Arc Creek, near Matoy. J. M. Abbott is Chn.

SAPULPA, OKLA.—Creek County will issue $200,000 of bonds for the construction of 70 bridges.

*LAS ANIMAS, COLO.—We are officially advised that bids were received on June 26 by Charles W. Comstock, State Engr., Denver, for the construction of the superstructure of a steel bridge over the Las Animas River in Bent County, about three miles from Las Animas. This work consists of furnishing and fabricating the material and erecting a 190-ft. steel riveted span. Bids were received for the furnishing, fabricating and erecting of bridge, complete, or will be received in two parts: (1) for furnishing, fabricating and delivering material at Las Animas, and (2) for hauling and erecting bridge upon piers already constructed. The M. J. Patterson Contracting Co., Colorado Bldg., Denver, was the lowest bidder, at $6,296. J. W. Johnson is Deputy State Engr., Denver.

*DENVER, COLO.—Bids are asked until noon, July 21, by Charles W. Comstock, State Engr., for furnishing, fabricating and delivering at Colorado railroad common points, for a fixed price per pound, the superstructure of all steel bridges to be built by the State Engineer prior to Jan. 1, 1911.

GALLINAS, N. MEX.—The contract for the erection of an arch concrete bridge, with two 68-ft. spans, a 49-ft. roadway and 8-ft. sidewalks, across the Gallinas River, between this town and city of Las Vegas, N. Mex., has been awarded to the MISSOURI VALLEY BRIDGE & IRON CO., of Leavenworth, Kan. The contract price is $32,000. The work is to begin within 30 days and the structure is to be completed by Nov. 30.

PORTLAND, ORE.—Plans for three of the four steel viaducts to be erected by the North Bank R. R. Co. over the Peninsula cut have been approved by the Bridge Committee of the Executive Board. These plans provide for bridges at Depot St., Dawson St. and Willamette Boulevard. Plans for the fourth bridge, which is to cross this cut at Columbia Boulevard, have not been approved by the Bridge Committee, pending some changes in the foundation to meet the city engineer's requirements. All three bridges are to be 60 ft. wide and 90 ft high. Those at Dawson St. and Willamette Boulevard are to be each 337 ft. long, and the one at Depot St. 157 ft. long. The driveway on all the bridges will be 40 ft. wide and the cement sidewalks on each side of the driveway 10 ft. wide. The foundations, piling and abutments are to be reinforced concrete. Floors are to be 6 ins. of concrete with a 4-in. surface of asphalt. None of the approaches is to be over 4 per cent. As prepared by the North Bank engineer, the plans of the bridges show that provision has been made for four tracks to be laid in the cut, which will necessitate widening the cut from 15 to 25 ft. These bridges are to cost about $60,000 each and work of building them will begin as soon as the contracts can be let by the company.

SAN PEDRO, CAL.—Bids for the construction of a bridge over the Guadalupe River at the Monterey Road were opened on June 23, when the Board of Supervisors met in adjourned session and were as follows: W. L. Gillham & Co., $4,942; L. M. Scott, $4,700; J. W. Williams, $4,500; Glabe Construction Co., $4,498. The bids of the two lowest bidders were referred to the Committee of the Whole.

*TORONTO, ONT.—The Provincial Public Wks. Dept. has awarded contracts for constructing the following bridges: Over Vermillion River, at Whitefish, to DIXON BRIDGE CO., at about $15,000; for steel superstructure of bridge over Spanish River at Nairn and to the GREN, SINCLAIR & CAMPBELL CO., of Toronto, for cement substructure of said bridge, total cost $12,000.

BUILDINGS.

(denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—Bids are asked by R. C. Holyday, Ch. of Bureau of Yards and Docks, Washington, D. C., until 11 a. m., July 31, for improving the ropewalk building (No. 58) at the U. S. Navy Yard, Boston. Specifications are on file at the office of Engineering News, New York.

SPRINGFIELD, MASS.—The bids for the proposed alterations and addition to the Hampden County court-house in this city were received by the County Commissioners on June 29. Of the six bids received, that of Norcross Bros., of Worcester, the builders of the present court-house, was the lowest. The bid of Norcross Bros. was $184,000. The other bids received were as follows: A. B. Stannard, St. James Bldg., New York, $192,284; Connors Bros., of Lowell, $194,200; John Gill & Sons, of New York, $197,650; Central Bldg. Co., of Worcester, $202,948; Casper Ranger, of Holyoke, $207,000. The plans for the alterations and additions were prepared by Kirkham & Parlett, Carr Bldg., Springfield. Work on the court-house will be started within a few weeks, and it is expected that the addition will not be completed for about a year. As much of the alterations of the interior as possible will be done this summer while the regular court business is light, in order that the routine of the courts may be interfered with as little as possible.

ATTLEBORO, MASS.—It is stated that Mrs. William C. Tappen, of Attleboro, has donated to the Y. M. C. A. the money with which to erect a Y. M. C. A. building on North Main St., Attleboro, as a memorial to William C. Tappan. Estimated cost, $50,000. Olsten M. Higgins, of Attleboro, is Arch. Charles F. Coykendale, Gen. Secy.

ROCHESTER, N. Y.—A $90,000 building contract, involving the erection of three additional stories to the Cutler Building at 32, 34 and 38 East Ave. and 353 to 373 Main St. East, has been let by the Cutler Realty Co. Pressed brick similar to that in the present building will be the material, and the additional stories will conform practically in every way to the old building. GORSLINE & SWAN have the general contract and the steel and iron and carpenter work will be done by F. L. HUGHES and BERNHARD PIKE, respectively. It is expected that the work will be completed in four months.

NEW YORK, N. Y.—We are officially advised that Carrere & Hastings., 225 Fifth Ave., Archs. for Col. John Jacob Astor, to show what changes the latter proposes to make in the city residence of the late Mrs. Astor at the northeast corner of Fifth Ave. and 65th St., have filed with Buildings Superintendent copies of the drawings of the late Richard M. Hunt, who designed the building, marked with the alterations which are to convert it into a single dwelling and which will chiefly have to do with remodeling the first and second stories. The architects estimate the cost of the alterations at $125,000, exclusive of the decorations. The entire contract has been let to MARC EIDLITZ & SON, 489 Fifth Ave., New York. Noted last week.

Plans have been filed with the Superintendent of Buildings in Queens Borough for the erection of a 3-story frame hotel, to be built in Amerman Ave. and the ocean front at Arverne, for Gold & Goldsmith, of 35 Nassau St., New York. The hotel will be 77 × 160 ft., and the architects are Shampan & Shampan, 772 Broadway, Brooklyn. The building is to cost $100,000.

Joseph Milbank has had plans drawn by George B. Post & Sons, Archs., 341 Fifth Ave., for an 18-story loft building, to be erected at the southwest corner of Fourth Ave. and 25th St., 98.9 × 125 ft. The structure is to be ready for occupancy next May. It will cost about $700,000.

A 20-story office building is to be erected by Frederick Johnson on the site of the old Allston apartment house, at the northwest corner of 38th St. and Madison Ave. The structure will be built from plans by Buchman & Fox, Archs., of East 59th St. It will have a frontage of 75 ft. on Madison Ave. and 100 ft. in 38th St.

NEW YORK, N. Y.—Bids were received by Robert W. Hebberd, Comr. of Public Charities, on June 30, for providing all labor and materials necessary or required for the excavation, masonry, steel and iron work, roofing and metal work, carpentry, plumbing work, heating work, electric work and all other work except certain kitchen, service and lighting fixtures and refrigerators, as set forth in the drawings and specifications for the construction and entire completion of (a) a dormitory for male inmates, a dormitory for female inmates and (b) a pavilion for the insane at the New York City Farm Colony, situated on the property of the Department of Public Charities, on the north side of the Manor Road, Township of Castleton, Boro. of Richmond, the City of New York: Luke A. Burke's Sons Co., 25 West 42d St., New York, (a) $108,750, (b) $12,000; George Hildebrand, 38 Park Row, New York (a) $109,800, (b) $13,200; J. & L. Moreland, 1910 Park Ave., (a) $123,581, (b) $12,850; Joseph De Benedetto, (a) $120,012, (b) $14,711; Thomas L. Leahy Bldg. Co., 1 E. 42d St., New York, (a) $131,918, (b) $16,200; O'Connell & Hanna, (a) $112,200, (b) $13,500.

Bids were received on July 7 by the Armory Board for all work and material required in furnishing alterations, additions, etc., to the armory of the Seventh Regiment, N. G., N. Y., 66th St. and Park Ave., Boro. of Manhattan: Kelly & Kelley, 45 East 42d St., New York, $172,984; N. B. Smyth, 1123 Broadway, New York, $189,387; D. J. Ryan, $219,700; Guidone & Gelardi, 162 East 23d St., New York, $194,600; P. J. Brennan & Sons, 624 Madison Ave., New York, $194,700; J. C. Vreeland Bldg. Co., New York, $212,682; George Hildebrand, 38 Park Row, New York, $189,740; Isaac Hopper, 231 W. 125th St., New York, $189,795; F. T. Nesbit, 116 Nassau St., New York, $215,000; Northeastern Construction Co., 225 Fifth Ave., New York, $193,400.

NEW YORK, N. Y.—Bids are asked by John W. Brannan, Pres. Bd. of Trustees, Bellevue and Allied Hospitals, until 1 p. m., July 16, for alterations and repairs to Wards 18 and 25 of Bellevue Hospital.

Bids are asked by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, until 3.30 p. m., July 19, for alterations, repairs, etc., at Public School No. 65, Richmond St., near Ridgewood Ave., and Public School No. 76, Wyona St., near Jamaica Ave., Boro. of Brooklyn.

BUFFALO, N. Y.—The George Irish Paper Corporation, L. F. Haupt, Pres., 100 Pearl St., has awarded general contract to A. B. BROWN, 425 Jersey St., for erection of a 5-story and basement warehouse, 70 × 175 ft., at River and Erie Sts., and New York Central R. R. The structure will be of brick, mill construction. Cost, $75,000. Louis P. J. Eckel is Arch., 192 York St.

HORNELL, N. Y.—The Board of Education has rejected all bids for the proposed Grammar School, on Main St., as being in excess of appropriation. W. S. Brickell, Arch., 595 Ellicott Sq., Buffalo, has been authorized to revise plans and again advertise for bids.

JAMESTOWN, N. Y.—The Jamestown Business College Association has decided to construct a 4-story brick structure at Fourth and Cherry Sts., it is stated. H. E. V. Porter is Pres. and Principal of the association.

Charles Samuels, who owns the Sherman House, is making arrangements for the construction of a 4-story brick addition on the south side of the present building, to cost $85,000.

JERSEY CITY, N. J.—Marin & Goldberg, Incorporated, wholesale grocers, 332 Palisade Ave., have purchased two lots at the northwest corner of Sherman Ave. and Ferry St. The new owners will erect a modern warehouse from plans by Philip Weilbacher. The building will be brick, 3 stories, 50 × 99 ft. in ground dimensions.

BRADLEY BEACH, N. J.—A $60,000 school house will be built, it is stated, in Bradley Beach. Plans for the structure have been accepted and call for twelve rooms, three stories high. The building will be brick and fireproof.

*BAYONNE, N. J.—Bids are asked by the Board of Education until 9 p. m., July 15, for installing additional heating apparatus at School No. 3, Broadway, between 49th and 50th Sts., Bayonne. Morris L. J. Scheffer, 124 West 30th St., is Arch.

ARDMORE, PA.—We are officially advised that Wilson Potter, 3 Union Sq., New York, has been selected as architect for the proposed $100,000 high school, to be erected by Lower Merion Township at Ardmore. H. J. Wightman is Supt.

PITTSBURG, PA.—Ground will be broken on Forbes St. and Fifth Ave., adjoining St. Peter's Protestant Episcopal Church, for a Masonic Temple, to cost $300,000, exclusive of the site. Competitive designs for the structure are being received from architects, who are members of the fraternity, and it is expected by the Building Committee that the temple will be under way by the first of next year. The temple will cover 55,000 sq. ft. of ground. The temple will be devoted to the Ancient Scottish Rite Masons.

ANNAPOLIS, MD.—Bids are asked until 11 a. m., July 31, by R. C. Holyday, Ch. of Bureau of Yards and Docks, Navy Department, Washington, D. C., for constructing five hospital buildings at the U. S. Naval Hospital, Annapolis. Specifications are on file at the office of Engineering News, New York.

BALTIMORE, MD.—A permit has been granted for the erection of a 4-story addition to the House of the Good Shepherd for Colored Girls. The new structure will cost about $165,000. Both buildings will be on the Calverton Road, between Franklin and Mulberry Sts. The foundations will be of concrete and the walls of brick. The larger building will be 91 × 181 ft., while the smaller one will be 36 × 20 ft. They will be heated with steam and lighted by electricity. Modern conveniences will be installed. Both buildings will be surrounded by porches. Plans for the improvements were drawn by Thomas C. Kennedy, Law Bldg., Baltimore, and the contract has been awarded to THOMAS E. REILLY, 1616 Thompson St., Philadelphia.

HAMPTON, VA.—Ludlow & Peabody, Archs., 12 West 31st St., New York, are preparing plans for a building for the Hampton Institute, to be erected at Hampton, Va., to be known as the Christian Associations Building. It will be a 2-story brick and terra cotta structure of Italian Renaissance design. The plan includes offices, class rooms and an assembly hall.

*FT. MONROE, VA.—We are officially advised that bids were received on June 30 by Capt. Ernest R. Tilton, Q. M., for the construction, heating, plumbing, electrical wiring and fixtures of two sets of quarters for officers at Ft. Monroe, Va. R. H. Richardson & Son, of Hampton, Va., submitted the lowest bid, at $40,874.

CLARKSBURG, W. VA.—ELLIOTT & WINCHELL, of Wheeling, W. Va., have secured the contract for the erection of the Nathan Goff banking building, and preparations will be made at once to get the work under way, the contract calling for completion by May 1, 1910. The structure is a 9-story bank and office building, and will cost when completed about $175,000. GEORGE E. KURNER, Mgr. of the American Electric Co., was the successful bidder on the wiring and other electrical work about the structure.

WINSTON-SALEM, N. C.—We are officially advised that the Directors of the Wachovia National Bank have accepted the design for their new building as submitted by Milburn, Heister & Co., Home Life Bldg., Washington, D. C. The building will be seven stories high, 40 × 70 ft., fireproof and of steel frame and brick construction. Cost, $80,000. Bids will be received about Aug. 10.

GASTONIA, N. C.—We are officially informed that the County Commissioners have selected Milburn, Heister & Co., Archs., Home Life Bldg., Washington, D. C., to prepare plans and specifications for the proposed $45,000 court-house. Bids will be called for the first of September.

MEMPHIS, TENN.—J. G. Rogers, 11 East 24th St., New York, N. Y., and N. M. Woods, Jr., of Memphis, are preparing plans for a proposed bank building, to cost $250,000, for the Central Bank & Trust Co., W. Perkins, Pres.

According to the Boston "Transcript," E. C. Rice, Asst. Secy. of the Memphis Builders' Exchange, figures out that more than $12,825,000 will be put into office buildings and other structures in this city by Jan. 1, 1910. The following are among the new buildings and structures proposed and the cost: Union Depot, $7,000,000; Tri-State Memorial Hospital, $400,000; Cotton Exchange, $1,200,000; Central Bank & Trust Co., $250,000; Interurban depot and entrance tracks, $1,000,000; Virginia Bridge & Iron Co., $150,000; Scottish Rite Cathedral, $100,000; Memphis Cotton Oil Co., $100,000; Young Men's Hebrew Association Building, $100,000; Frisco shops, $75,000; Rock Island's terminals across the river, $500,000; City Hall, $250,000; High and Industrial School, $300,000; Lenox School, $50,000; addition to city schools, $150,000; Bellevue Baptist Church, $4,000; Tri-State Hospital, $40,000.

VERSAILLES, KY.—Bids were received as follows on July 1 by James Knox Taylor, Superv. Arch. of the Treasury Department, Washington, D. C., for the construction of a post-office at Versailles, Ky.: D. J. Phipps, Newport News, Va., $40,800; Interstate Construction Co., Ltd., Saginaw, Mich., $39,970; John V. Brown, Versailles, Ky., $40,000; John Rump, Versailles, Ky., $38,990; Harry A. Bishop, Chicago, $37,990. Time, Aug. 1, 1910.

LONDON, KY.—James Knox Taylor, Supervising Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office at London, Ky., to ALFRED STRUCK CO., Louisville, Ky., at $82,294.

CLEVELAND, OHIO.—We are officially advised that a store and office building will be erected at a cost of $75,000 at the corner of Euclid Ave. and East 18th St. The structure is to be built by Henry T. Loomis, Vice-Pres. of the Spencerian Business College. The plans call for a 2-story building with 134-ft. frontage on Euclid Ave. It will extend 158 ft. in the rear to the front of the Spencerian Business College building. The foundations will be constructed to permit of the addition of eight stories. The upper floors will be added as the need for them arises. There will be seven stores on the first floor. On the second floor will be office rooms so arranged that they can be connected readily with the stores down stairs. The building will in no way interfere with the college. There will be an arcade entrance to the college through the building. The contract for excavating and concrete has been let to the F.-P. CONSTRUCTION CO.

CANTON, OHIO.—George D. Harter Bank Co. has decided to erect a 6-story bank building on the public square, at a cost of $100,000.

CINCINNATI, OHIO.—J. G. Schmidlapp is planning the erection of an office building at least 14 stories high at Fourth and Walnut Sts. and to cost about $1,000,000.

FORT WAYNE, IND.—The Petitt Warehouse Co. will receive bids for the erection of a 6-story storage house on East Columbia St. as soon as plans, now ordered, are completed.

BLOOMINGTON, IND.—The Trustees of Indiana Central University have ordered plans on which bids will be asked for the construction of a dormitory.

LAPORTE, IND.—The Building Committee of the Y. M. C. A. has awarded the contract for plans and specifications for the construction of a building to Chattuck & Hussey, of Chicago. Bids will be in order as soon as plans are completed.

INDIANAPOLIS, IND.—On June 25 permit was issued for a boys' dormitory at the Indiana School for the Blind, on North Pennsylvania St. to cost $57,000. It will be a 3-story brick structure.

ARLINGTON, IND.—Bids are asked by N. R. Farlow, School Trustee, until 2 p. m., July 24, for the construction of a 2-story brick school building.

CLAY CITY, IND.—Bids are asked by W. W. Collins, Chn. School Bd., until 2 p. m., July 21, for the construction of a 2-story brick school house.

INDIANAPOLIS, IND.—We are officially advised that the J. A. SCHUMACHER CO., 18 East St. Clair St., has the contract for the construction of School-house No. 40, at $52,400; and the HEINZMAN BROS., for No. 54, at $42,130. R. P. Daggett & Co., Lemcke Bldg., and Brubaker & Stone are the respective Archs. John E. Cleland is Business Dir. School Bd.

CHICAGO, ILL.—A 6-story pressed brick addition is to be erected to the Wesley Hospital at 2449 Dearborn St., at a cost of $150,000, it is reported. George L. Harvey is Arch., 175 Dearborn St.

The Chicago "Tribune" states that F. A. Delano, Pres. of the Wabash R. R. Co., has submitted to the city and railway officials plans for a $100,000,000 transportation center for Chicago. The project is in connection with the erection of a new terminal station of the Western Indiana R. R., and contemplates the abondonment of present freight and passenger terminals and the centralization of many lines in a great structure half a mile south of the present limits of the business district. No formal action on the plan has been taken.

*BELVIDERE, ILL.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Aug. 9, for the construction (including plumbing, gas-piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Belvidere, Ill.

MADISON, WIS.—T. C. McCARTHY has been awarded the contract for constructing the proposed Washington Block by the Washington Building Co. He will sublet the work. Work of tearing down the old Journal block will soon commence.

MILWAUKEE, WIS.—Kirchhoff & Rose, Archs., Majestic Bldg., have awarded mason contract on the proposed $50,000 mercantile building to be erected on East Water St., between Buffalo and Detroit Sts., for Alfred Uihlein, of Schlitz Brewing Co., to HENRY DANISCHEFSKY, 1060 Eighth St., Milwaukee.

CLARINDA, IOWA.—Bids were received as follows on June 29 by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office at Clarinda, Iowa: King Lumber Co., Charlottesville, Va., $54,900; J. W. Miller, St. Paul, Minn., $58,329; Bartlett & Kling, Cedar Rapids, Iowa, $88,700; Interstate Construction Co., Saginaw, Mich., $57,432; General Construction Co., Milwaukee, Wis., $55,945; Henry Forge, Milwaukee, Wis., $60,000. Time, March 1, 1910.

BILLINGS, MONT.—Work on the proposed Polytechnic School for Billings will start soon and five buildings are to be completed in time for the opening of school Oct. 1. Besides the local corporation, David S. Jordan, Pres. of Leland Stanford University; Governor Norris of Great Falls, and others are on the council. Cost, $1,000,000.

EAGLE PASS, TEX.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Aug. 2, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office and custom-house at Eagle Pass.

CORSICANA, TEX.—Bids were received as follows on July 6 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington D. C., for the construction of a post-office building at Corsicana, Tex.: King Lumber Co., Charlottesville, Va., $73,850; General Construction Co., Milwaukee, Wis., $81,900; L. R. Wright, Dallas, Tex., $80,000; Tom Lovell & Son, Denton, Tex., $76,144.

*FORT SILL, OKLA.—We are officially advised that bids were received June 10 by Capt. David L. Stone, Constr. Q. M. for (a) the construction, (b) plumbing and (c) wiring of the following reinforced-concrete buildings: One Colonel's quarters; two field officers' quarters; three four-set offiers' quarters; six field artillery barracks; one band barrack; four double sets N. C. O. quarters; one administration building; one post exchange; two storehouses; one bakery; six battery stables; one band stable; one Q. M. stable; three double stable, guard and shop building; six gun sheds; two hay sheds; one granary; one coal shed; one wagon shed; one pump house. The following contracts have been let: (a) and (c), LYSTER & LEWES, Dayton, Ohio, $714,175 and $11,273; (b) NEWPORT PLUMBING & HEATING CO., Newport News, Va., $42,998. The contract for constructing the central heating plant has been let to EVANS, ALMIRALL & CO., 281 Water St., New York, at $93,411.

WALLA WALLA, WASH.—The Washington Hotel Co., of Walla Walla, has been organized in this city with J. G. Scott, W. H. Kirkman, Robert H. Johnson, J. M. Crawford and Robert E. Allen, of Walla Walla, and E. B. MacNaughton, of Portland, Ore., as the first Trustees. The corporation is to erect a hotel building to cost approximately $125,000.

The Odd Fellows are to erect a new building here to cost between $40,000 and $50,000 this summer.

EUREKA, CAL.—James Knox Taylor, Supervising Arch. of the Treasury Dept., Washington, D. C., has awarded to the GLOBE CONSTRUCTION CO., Chronicle Bldg., San Francisco, Cal., contract for the construction of a post-office at Eureka, Cal., at $118,370.

SAN FRANCISCO, CAL.—Bids are asked until 11 a. m., July 12, by the Board of Public Works, for general construction of the Hall of Justice. Loring P. Rixford is City Arch., Grant Bldg.

MOSCOW, IDAHO.—Bids were received as follows on June 30 at the office of James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office at Moscow, Idaho: J. H. Weise, South Omaha, Neb., $87,558; Interstate Engineering Co., Saginaw, Mich., $88,360; Hoyt Bros., Santa Rosa, Cal., $96,255; Hastee & Duggan, Seattle, Wash., $90,566. Time, Aug. 1, 1910.

HAWAII.—Announcement is made, according to the "Journal of Commerce," New York, at the Treasury Department, Washington, D. C., that architects had been invited to enter competitions for the Federal building at Honolulu. Estimates and specifications have been invited from Palmer & Hornbostel, of New York; Potter & Merrill, Tacoma, Wash.; C. W. Dickey, San Francisco; Stevens & Paist, Philadelphia; York & Sawyer, New York; Parker, Thomas & Rice, Baltimore; C. C. Zantzenger, Philadelphia; F. B. Huntington, with Hoppin & Koehn, New York; Wood, Donn & Deming, Washington, D. C.; Richard E. Schmidt, Garden & Martin, Chicago; D. H. Burnham & Co., Chicago; Holabird & Roche, Chicago; John G. Howard, San Francisco; Hornblower & Marshall, Washington, D. C.; Butler & Rodman, New York city; Mauran & Russell, St. Louis. The judges of the competition will be Nathan C. Wyeth, Glenn Brown, of Washington, D. C.; W. C. Nolting, of Baltimore, Md., and James Knox Taylor, Superv. Arch. of the Treasury. The building is estimated to cost $800,000. The designs are to be submitted to the Secretary of the Treasury by Sept. 15.

WATER SUPPLY—IRRIGATION.

KEZAR FALLS, ME.—CHAS. N. TAYLOR, Wellesley, Mass., has contract for constructing water system here consisting of several miles of pipe and a 200,000-gal. reinforced-concrete standpipe. The contract includes the engineering.

WELLESLEY, MASS.—We are officially advised that CHAS. N. TAYLOR, Wellesley, has been awarded contract for covering reservoir here with concrete, groined arch construction. F. L. Fuller, Engr., 12 Pearl St., Boston.

FALL RIVER, MASS.—Announcement is made that Philip D. Borden, City Engr. of Fall River, with Arthur T. Safford, of Lowell, as Consulting Engr., is to make investigations and report to the Reservoir Commission as to the best method of protecting the water supply; $200,000 has been appropriated for this purpose.

BOSTON, MASS.—Bids will be received until 2.30 p. m., July 12, by Metropolitan Water and Sewerage Board, 1 Ashburton Pl., Boston, Dexter Brackett, Ch. Engr., for laying 3,900 lin. ft. 16-in. c.-i. water pipe in Revere; also 12,300 lin. ft. 24-in. in Everett, Chelsea and Revere.

BRAINTREE, MASS.—Bids will be received until July 14 by Board of Water Commissioners for furnishing and laying 8,600 ft. 8-in. c.-i. water pipe, hydrants, special castings, etc.

*PROVIDENCE, R. I.—Bids are asked until 2 p. m., July 27, by the Board of Contract and Supply for furnishing and erecting complete at the city's water-works, high service pumping station, corner Olney St. and Brown St., Providence, a 10,000,000-gal. pumping engine to be placed in the space now occupied by the Nagle pumping engine. Mayor Henry Fletcher, Chn. Bd.

*MOUNT MORRIS, N. Y.—Bids are asked until 8.30 p. m., July 22, by the Board of Trustees, Village of Mount Morris, for constructing a water-works system here; $46,000 has been voted for this purpose.

NEW YORK, N. Y. (Governor's Island, N. Y. H.)—Bids were opened June 15 by I. W. Littell, D. Q. M., Ch. Q. M., U. S. A., for building shelter, installing fire pump and extension of salt water mains at this post. The contract has been awarded to LAURENCE J. RICE, 103 Park Ave., New York, at $6,921.

BUFFALO, N. Y.—The Aldermanic Finance Committee has approved an issue of $500,000 of bonds to continue the construction of a new inlet, tunnel, pumping station, engines and mains for the new water-works. F. G. Ward is Comr. Pub. Wks.

FREDONIA, N. Y.—DENNIS GOGGIN has been awarded contracts for laying 4-in. water mains in Risley, Chestnut and Orchard Sts.

BUFFALO, N. Y.—Bids will be received until July 14 by Francis G. Ward, Comr. Public Works, for excavating, concrete, brick and iron work for two pipe tunnels from 42 ft. easterly from present pumping station wall to the westerly crib line of Front St.

PHILADELPHIA, PA.—The following are the bids opened on June 22 for a 45,000,000-gal. capacity centrifugal pump for Torresdale filtration plant: Drovo-Doyle Co., $16,060 (95 days); Henry R. Worthington, $20,385 (165 days), and Atlantic Hydraulic Machinery Co., $25,900 (130 days).

EDWARD FAY & SON, 2606 Richmond St., Philadelphia, have been awarded the contract for the laboratory equipment for the Torresdale filter station, under contract 167. The work will cost about $5,000.

PHILADELPHIA, PA.—The Common Council on June 17 passed a bill authorizing the creation of a loan for $5,739,700, to be used for municipal purposes as follows: Queen Lane filtration plant to increase the water supply by 70,000,000 gallons daily, $725,000; branch sewers, $250,000; high-pressure fire system in the Kensington district, $700,000; completion of City Hall and improvement of the police and fire alarm system, $275,000; new police and fire stations, $275,000; improvement of small parks, $40,000, etc. Geo. R. Stearns is Dir. Pub. Wks.

HAGERSTOWN, MD.—Hanck & McMillan have secured a franchise for a water-works plant and will let contract for construction and equipment as soon as plans can be made.

ORANGE, VA.—An election will be held soon to vote on the question of issuing $30,000 of bonds for the construction of a system of water-works. Z. W. Chemung is Town Clk.

PULASKI, VA.—Bids will be received by the Town Council until 8 p. m., July 17, for constructing a steel-concrete dam, 750 cu. yds. concrete and 20 tons of reinforcement; also for laying 15,000 ft. of 12-in. cast-iron main, 650 tons. G. H. Derrick, Pulaski, Engr.

JACKSONVILLE, FLA.—Bids were received on June 18 by the Trustees of the Water Works and Improvement Bonds, Bion H. Barnett, Chn., for laying 14,656 ft. of 8, 12, 16 and 20-in. c.-i. pipe, and special castings, setting hydrants and valves. R. N. Ellis is Supt. Contract was let to BRYAN & CO., Jacksonville, at $7,070.

UNIONTOWN, ALA.—The city has employed Edgar B. Kay, University of Alabama, Dept. of Engineering, University, Ala., to prepare plans for remodeling the water and light power station; the city will construct a reinforced-concrete storage basin.

CLEVELAND, TENN.—The Water-Works Commission, George T. Hall Chn., will make improvements to the water-works, $11,125 now being available. The improvements will probably include new pump, laying about 3,000 ft. 10-in. mains, half mile 8-in. and some 6-in. mains.

CHATTANOOGA, TENN.—The Water-Works Commission has engaged Walter G. Kirkpatrick, Engr., Jackson, Miss., to prepare plans and specifications for new municipal system of water-works; bonds authorized, $900,000. Supply will come probably from Tennessee River, with mechanical filtration, pumping to reservoir and gravity distribution, through cast-iron mains; also separate high-level system.

JOHNSON CITY, TENN.—Plans for new municipal system will be made by W. M. Dunlap, City Engr., and Walter G. Kirkpatrick, Consult. Engr., Jackson, Miss. Probable cost, about $250,000. Gravity supply from springs, with reservoir and distributing mains.

MOUNT PLEASANT, TENN.—City has voted $65,000 bond issue for construction of water-works; gravity system. J. P. Warnock, Mayor.

DELPHOS, OHIO.—The citizens on June 11 voted to issue $10,000 of bonds for water-works extensions and $20,000 for park improvements.

PLEASANT HILL, OHIO.—Bids will be received by Dr. A. J. Bausman, Clk., Board of Public Affairs, until July 17 for the construction of water-works. A. C. Reed, Pleasant Hill, is Engr. Specifications are on file at office of Engineering News, New York.

CINCINNATI, OHIO.—The Board of Public Service has awarded the contract for furnishing cast-iron pipe and special castings for the Water-Works Department to the DIMMICK PIPE CO., at its bid of $56,581, and for laying the pipe to McCARTHY BROS., at their bid of $16,901.

GRAND RAPIDS, MICH.—See item under Streets and Roads.

MARSHALLTOWN, IOWA.—Bids opened June 14 for constructing an elevated tank 165 ft. high and holding 100,000 gallons of water have been rejected and new bids will be received. Noted last week.

WABASHA, MINN.—Bids will be received until July 12 by Matt T. Duerre, County Audr., for furnishing material and constructing a water pressure system for the court-house.

HASTINGS, MINN.—Bids will be received until July 12 by J. H. Twitchell, City Clk., for furnishing material and constructing water-works and sewers in Fourth and Fifth Sts.

*DELPHOS, KAN.—See item under Light and Power Plants.

AUBURN, NEB.—See item under Sewers.

DOLAND, S. DAK.—Bids will be received by the City Council until 8 p. m., July 17, for laying about 6,500 ft. of water mains. P. L. Brown is City Audr.

FORT YELLOWSTONE, WYO.—Bids were opened at the office of Lieut. G. C. Smith, Constr. Q. M., U. S. A., for constructing reinforced-concrete reservoir for hydro-electric power plant at this post. The contract has been awarded to the D'OLIER ENGINEERING CO., 119 South Eleventh St., Philadelphia, Pa., for $25,400.

GRAVETTE, ARK.—Contract will probably be let in the fall for the construction of water-works. Estimated cost, $12,000. E. M. Gravette is City Recdr.

RYAN, TEX.—The city has voted an issuance of $45,000 of bonds for water-works.

MISSION, TEX.—The MINNEAPOLIS STEEL & MACHINERY CO., Minneapolis, Minn., has received the contract for irrigation plant which is to be installed at Mission, Tex., by Conway & Holt. It will consist of a 14 & 30 × 36" heavy duty cross compound Twin City Corliss engine, 36-in. centrifugal pump which will be mounted direct on the engine shaft, 300-HP. boiler, boiler feed pump and heater. The plant will have a capacity of 35,000 gals. per minute.

EL RENO, OKLA.—The Mayor and City Clerk are making preliminary preparations to install a water system for the city.

CARMEN, OKLA.—Bids were opened June 21 by the Chairman Board of Trustees for constructing water-works, including c.-i. pipe, hydrants and valves, pumping machinery and boilers. Contract has been awarded to the O'NEILL ENGINEERING CO., of Dallas, Tex.; approximate cost, $27,500.

WAPANUCKE, OKLA.—City has voted $45,000 bond issue for construction of water-works and electric-light plant.

FORT COLLINS, COLO.—Bids, including plans and specifications, will be received until noon, July 16, by Robt. S. Fedder, City Clk., for constructing a filtration plant in

connection with the water-works. Bids will be received on both slow sand and mechanical filters of a capacity of 4,000,000 gals. per day.

CLOVIS, N. MEX.—The MATHEWS CONSTRUCTION CO., Kansas City, Mo., secured the contract at $59,487 for constructing a complete system of water-works and electric light plant for Clovis. M. Boyle is City Clk. Burns & McDonnell, Kansas City, Mo., are Engrs.

HOQUIAM, WASH.—The Hoquiam Water Co. will soon begin the construction of a reservoir on College Hill. Estimated cost, $500,000.

HOOD RIVER, ORE.—City will vote on July 28 on the proposition to issue bonds in the sum of $90,000 for the establishment of a municipal water-works system.

COLUSO, CAL.—Specifications will be ready in 60 or 90 days for a water-works and sewer system. Estimated cost, $62,000 to $75,000.

*NEWMAN, CAL.—Bids will be received by the Newman Water-Works Co., E. S. Wangenheim, Pres., at the office of the company, Newman, Cal., until 4 p. m., July 15 (a postponement from July 10), for the following work: Furnishing and erecting a steel tower, 100 ft. high and a steel tank of 100,000 gallons capacity; furnishing and erecting a reinforced-concrete reservoir of 100,000 gallons capacity; laying 5,000 ft. 4-in. and 1,000 ft. 6-in. pipe. Charles E. Sloan is Consulting Engr. Plans and specifications are on file at the office of Engineering News, New York.

EPHRAIM, UTAH.—A franchise has been granted by the Council to B. F. Smith, of Salt Lake City, for a city water-works system. Work is to start within 90 days.

VANCOUVER, B. C.—It is planned to establish a city water system to cost about $325,000.

SEWERAGE.

(denotes that this work is advertised in Engineering News.)*

HARTFORD, CONN.—The State Senate has passed the bill authorizing this city to issue $300,000 of bonds for the East Side intercepting sewer.

NEW YORK, N. Y.—Bids are asked by Louis F. Haffen, Pres. Bronx Boro., until 11 a. m., July 13, for constructing sewers and drains and appurtenances in various streets.

Bids are asked by George Cromwell, Pres. Boro. of Richmond, until noon, July 20, for furnishing all the labor and material required for constructing a system of temporary sewers and appurtenances as follows: A separate sanitary sewer and a storm water overflow sewer in Canal St., from Bay St. to a point about 150 ft. west of Brook St., and other streets, together with all work incidental thereto; for furnishing all the labor and material required for constructing a system of temporary sewers and appurtenances, as follows: A combined sewer in Broad St., from Patten St. to Richmond Road, and other streets, together with all work incidental thereto.

LINDEN, N. J.—The HARRISON CONSTRUCTION CO., Newark, N. J., has received contract for constructing No. 1 main trunk sewer, 20-in. pipe, about 15,700 ft. long, and WADE & CALLAHAN, Elizabeth, N. J., were awarded contract for constructing sub-trunk sewers, consisting of about 13,300 ft. of pipe. Jacob L. Bauer, Elizabeth, is Engr.

GLASSPORT, PA.—Bids are asked until 8 p. m., July 12, by M. E. Randall, Boro. Secy., for the construction of a 4-ft. 2-ring brick sewer, a 24-in. terra cotta sewer, an 18-in. terra cotta sewer and a 12-in. terra cotta sewer, including house connections to curb line, on Ninth St. and Indiana Ave. Thomas W. White is Boro. Engr., McKeesport, Pa.

PHILADELPHIA, PA.—Bids are asked by George R. Stearns, Dir. Dept. of Public Works, until noon, June 21, for Schedule B, constructing sewers in Lincoln Ave., Gorgas, Ninth and York Sts., and Washington Lane.

ALEXANDRIA, VA.—The City Council on June 8 appropriated $8,000 for the extension of the trunk sewer, from King and West Sts., to Fayette St.

DURHAM, N. C.—The J. E. DICKSON CO. of Durham has received contract to construct a sewer system to connect the new hospital with city lines. Estimated cost, $10,000.

FORSYTH, GA.—The city has voted $15,000 of bonds for sewer improvements.

MADISON, FLA.—J. B. McCrary & Co., Empire Bldg., Atlanta, Ga., have prepared and submitted plans and specifications for sewer construction and municipal improvements here and will also supervise construction.

MOBILE, ALA.—Bids are asked until noon, July 27, by the Board of Public Works, Wright Smith, Ch. Engr., for furnishing material and constructing 11,600 ft. of pipe sewers, 30 ins. to 10 ins. in diameter; 5,000 lin. ft. of 6-in. house connections, with manholes, catch-basins, inlets and other appurtenances.

CHATTANOOGA, TENN.—The city has voted $100,000 of bonds for South Chattanooga cross-town sewer and $25,000 for small sewers in various parts of city. Robert Hooke is City Engr.

ELIZABETHTON, TENN.—Bids are asked until July 15 by the city for the construction of a sewer system. Estimated cost, about $15,000. E. C. Cass is Recdr.

LOUISVILLE, KY.—Section A, of the Northwestern Trunk Sewer, will be constructed by the FERRO CONCRETE & CONSTRUCTION CO., Richmond and Harriet Sts., Cincinnati, a contract for the work having been awarded the firm following a letting held by the Louisville Sewerage Commission on June 25. Four other firms were represented at the meeting, the Fruin Colnan Construction Co., of St. Louis; T. J. O'Connell & Co., Baltimore; E. G. Nave Bros' Co., Portsmouth, Ohio, and the Henry Bickel Co., Louisville. The system to be constructed according to contract, will be an outlet for the Northwestern Sewer and will empty into the Ohio River at Shawnee Park. According to the terms of the contract it is to be completed within a year and will be constructed at a cost not to exceed $30,000. J. B. F. Breed, Louisville, is Ch. Engr.

NEWBURGH, OHIO. — The WATER-WORKS CONSTRUCTION CO., Cleveland, Ohio, has been awarded contract, at $15,040, for constructing sewers in Buckey Road and other streets. Bids were opened by the city on June 7.

ASHTABULA, OHIO.—The City Council has voted to construct a sanitary sewer in N. Main St., north of Lake St.

DAYTON, OHIO.—Bids will be received by the Clerk of the Board of Public Service until July 12, for the construction of storm-water sewer in Wyoming St., from Phillips to Vreighton Aves.

CLEVELAND, OHIO.—John Wagner has been awarded the contract to lay two sections of the intercepting sewer between East 61st and East 67th Sts., at a cost of $235,000. It was agreed to give Mr. Wagner until Aug. 1, 1910, to complete the work.

GREENCASTLE, IND.—Plans for the construction of a complete sewer system have been aproved by the State Board of Health. Bids will be advertised for soon.

BREMEN, IND.—Plans are being prepared by W. S. Moore, Consulting Engr., Mishawaka, Ind., for the construction of a sewer system here. Frank Knoblock is Town Clk.

ANDERSON, IND.—The Board of Public Works is planning to ask for bids for converting Greens brook into a trunk sewer. Estimated cost, $75,000.

GREEN CASTLE, IND.—Plans and specifications for a sewer system are being made. Bids will be invited soon. Estimated cost, $100,000.

INDIANAPOLIS, IND.—See item under Streets and Roads.

GRAND RAPIDS, MICH.—See item under Streets and Roads.

GRAND RAPIDS, MICH.—McDERMOTT & COOPER have been awarded contract by the city at $18,433, for the construction of a sewer in Alpine Ave.

SYCAMORE, ILL.—The Board of Public Works, Walter Hayes, Chn, will construct a gravity sewer system here. Bids will be asked about Aug. 1.

PROPHETSTOWN, ILL.—Bids are asked by D. L. Woodward, City Clk, until July 15 for the construction of sewers here. F. W. Sears is Engr.

HARVARD, ILL.—The E. R. HARDING CO., Racine, Wis., has secured contract at $29,374, for constructing a sanitary sewer system, to include 12,970 ft. 6-in., 17,900 ft. 8-in., 4,660 ft. 10-in., 6,812 ft. 12-in., 990 ft. 15-in. and 2,510 ft. of 18-in. tile sewer, and LOGAN & GIERTZ, Elgin, Ill., at $10,800, were awarded contract for the filter beds and tanks. Bids were opened on June 12.

APPLETON, WIS.—GREEN & SONS CO., Appleton, have been awarded contract at $28,000, for constructing sewer in ravine from Lawrence St. to the Fox River. WILLIAM WENDBLANDT, Appleton, has been awarded contract for a sewer in Ontaganon St.

MARINETTE, WIS.—Bids are asked by the Board of Public Works until 2 p. m., July 12, for the construction of sewers in several streets.

DENISON, IOWA.—The city will construct a sewer here to include 780 ft. of 8-in. vitrified sewer pipe. Alfred Wright is City Clk.

VIRGINIA, MINN.—The PASTORET-LAWRENCE CO., of Duluth, was awarded contract on June 22 by the City Council for the construction of a storm sewer at $24,363. There were two other bidders, H. L. Bartlett & Co., of Virginia, $27,766, and C. C. Butler, of Virginia, at $26,793. The contract provides for storm sewers all through the southern part of the city with an outlet in a creek west of the town.

AUGUSTA, KAN.—Plans are being prepared by Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., for the construction of sanitary sewers. W. H. Ruby is City Clk.

AUBURN, NEB.—We are officially advised that on June 23, 15 bids were received for constructing sanitary sewers, and the contract was awarded to KATZ-CRAIG CONSTRUCTION CO., for $17,153. On the same date 13 bids were received on water-works, and the work was awarded to the KATZ-CRAIG CONSTRUCTION CO. for $22,701. The same company's total bid, including water-works, sewers, furnishing cast-iron pipe, hydrants and valves, standpipe, etc., was $61,807. Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., are Engrs.

LIBERTY, MO.—Bids are asked until 5 p. m., July 16, by E. H. Collins, City Engr., for constructing sewers in districts Nos. 1, 2, 3 and 4 and appurtenances. Estimated cost, $23,000. W. Kierstead, Water-Works Bldg., Kansas City, Mo., is Consult. Engr.

DALLAS, TEX.—The city will receive bids until July 14 for the construction of a sanitary sewer from Fair Grounds through South Dallas to Trinity River, requiring 7,500 ft. of 24-in. pipe, 2,000 ft. of 20-in. and 1,000 ft. of 18-in., ditch from 8 to 21 ft. deep. J. B. Winslett is City Secy.

BELLINGHAM, WASH.—The City Engineer's estimate of the cost of connecting the Elk St. septic tank with the trunk sewer at York and Elk Sts. has been filed with the Board of Public Works, and is placed at $5,447. A 24-in. vitrified pipe, 200 ft. long, would have to be laid, this costing about $12 per foot.

ONTARIO, CAL.—DAVID JOY has secured contract at $9,000 for constructing lateral sewers in all alleys in this city.

OAKLAND, CAL.—Bids are asked until 11 a. m., July 14, by the Board of Public Works for labor and materials for the construction of a storm sewer in Harrison St., from Bay Pl. to Glen Echo Creek.

LOS ANGELES, CAL.—J. C. DUNCAN, Los Angeles, has been awarded contract at $47,580 for constructing Section 4 of the South Los Angeles main sanitary sewer, sewer to be of brick, egg shaped and 27 ins. in diameter.

SAN DIEGO, CAL.—Ocean Beach is to be furnished with a sewer and water system by the city of San Diego, of which it is a part. The water system of Point Loma will also be enlarged. Total cost, $100,000.

WINNEMUCCA, NEV.—A bond issue has been authorized at a recent election for the construction of a sewer system here.

GARLAND, UTAH.—The Utah-Idaho Sugar Co. will begin at once the work of putting in a sanitary drain and sewer in Austin St.

LOGAN, UTAH.—Bids are asked by the City Council until July 23 for constructing sewers in this city to cost about $50,000. A. F. Parker, Ogden, Utah, is Consult. Engr.

SANDPOINT, IDAHO.—The citizens on June 10 voted to issue $40,000 of bonds for a sewerage system. John K. Ashley, Sr., is City Engr.

MOOSE JAW, SASK.—McVEAN & CRAIG, Prince Albert, Sask., have been awarded contract at $20,777 for sewers and waterworks for this city. The work includes the labor and materials for 15,000 lin. ft. 8-in. sanitary sewer and 6-in. c.-i. water main. Bids were opened on May 31.

STREETS AND ROADS.

(denotes that this work is advertised in Engineering News.)*

NASHUA, N. H.—The contract for bituminous macadam pavement has been awarded to AHERN BROS., of Norwich, Conn. Cost, $10,000.

BOSTON, MASS.—Bids were received on June 21 by the Charles River Basin Commission for surfacing Sections 2, 3 and 4 of Boston Embankment, and the lowest bid was that of Bruno & Petitti, of Boston, at $48,-003. Totals of other bids: Holbrook, Cabot & Rollins Corporation, Boston, $49,421; T. H. Gill Co., Somerville, $49,460; F. A. Wyman, Jr., Boston, $50,722; Jas. Driscoll & Son, Brookline, $51,800; Coleman Bros., Boston, $53,167; H. M. McBride, Brighton, $55,-176; W. H. Ellis, East Boston, $61,092; and James T. Barrett, Cambridge, $62,996. Hiram Miller is Ch. Engr.

Bids were received by the Street Department and contracts have been awarded as follows: Massachusetts Ave., to FRED S. & A. D. GORE CORPORATION, for $21,547, and Washington St., to JOHN F. O'CONNELL, at $21,392.

LYNN, MASS.—The Essex County Commissioners have awarded contract for constructing Lynnfield St., Lynn, to A. S. TOMASSELLO, of Dorchester, at $22,249. He was the lowest bidder.

HARTFORD, CONN.—Plans for state road work have been received in the office of the State Highway Commissioner as follows: From F. H. Oldershaw, Engr., 3,900 lin. ft. on West Main St., New Britain; from C. H. Olmsted, 6,600 lin ft. on Main St., East Hartford; from McElroy & Kershaw, 6,300 lin. ft. on the Bridgeport and Newtown Turnpike in the towns of Trumbull and Monroe.

NEW YORK, N. Y.—Bids are asked until 11 a. m., July 13, by Louis F. Haffen, Pres. Bronx Boro., for paving and repaving with asphalt blocks on a concrete foundation the roadways of various streets; also for regulating, grading, setting curbstones, etc.

NEW YORK, N. Y.—Bids are asked by Bird S. Coler, Pres. Boro. of Brooklyn, until 11 a. m., July 21, for paving various streets in Brooklyn.

Bids are asked by the Park Board, Henry Smith, Pres., until 3 p. m., July 22, for furnishing all the labor and materials for constructing a block asphalt pavement on the roadway of the bridge over the tracks of the New York, New Haven & Hartford R. R. on Bronx and Pelham Parkway, in the Boro. of the Bronx, in the City of New York.

*UTICA, N. Y.—Bids are asked until 9 a. m., July 15, by the Park Board, W. H. Morton, Secy., to construct Utica Parkway from Genesee to Elm Sts., including laying approximately 16,000 sq. yds. of bituminous macadam and various other items.

*SOMERVILLE, N. J.—Bids are asked by the Board of Chosen Freeholders until 11 a. m., July 19, for macadamizing 3,600 ft. of road in Warren County. Thomas E. Gibson is Dir.

PATERSON, N. J.—Bids are asked until 2 p. m., July 12, by George W. Bottbyl, Clerk, for the following work: Grading and macadamizing with oil binder the following roads: Main St., from Nichols St., Paterson, to Harrison St., Passaic; Hope Ave., from Washington Ave., Passaic, to Garfield Ave., at Quackensack Township; Union Ave., Paterson, from Paterson Ave. to the city line.

MORRISTOWN, N. J.—Bids will be received by the Bd. of Chosen Freeholders until Aug. 2 for macadamizing Morris Plains and Parsippany Road, Gladstone and Chester Road, Pompton and Newark Turnpike. Gustave A. Becker is Dir.

*HACKENSACK, N. J.—Bids are asked until 8 p. m., July 19, by the Hackensack Improvement Commission, 193 Union St., for macadamizing various streets of the town, embracing about 110,000 sq. yds. of macadam. Lemuel Lozier is Engr., Bank Bldg., Hackensack.

PITTSBURG, PA.—Bids are asked by the McBride Surveying & Engineering Co., Ltd., Boro. Engrs., Fitzsimons Bldg., until 4 p. m., July 9, for the grading, curbing and paving of Harrison Ave., from Forest to California Aves.

LATROBE, PA.—Bids are asked by the Borough of Latrobe, until 7.30 p. m., July 19, for grading, curbing and paving various streets in Latrobe. E. M. Eaton is Secy.

WILMINGTON, DEL.—Bids will be received by Francis A. Price, County State Highway Comr., 1009½ Market St., Wilmington, until July 20 for constructing a stone road with a finished surface of macadam, amiesite or tar or asphaltic macadam.

OAKLAND, MD.—We are officially advised that J. E. FRANCIS, of Punxsutawney, Pa., has secured the contract to construct 5.55 miles of macadam road at Oakland for the state of Maryland, at about $58,000.

BALTIMORE, MD.—The State Roads Commission received bids on June 30 for the construction of about 40 miles of roads in different counties. For the work in Charles County the Commission did not receive any bid. The specifications will be readvertised. No bid was received for building a gravel road in Prince George's County, while several proposals were received for a macadam road. It was estimated that a gravel road could be built for $4,000 a mile, while the lowest price submitted for a macadam road is about $10,000 a mile. In St. Mary's, Calvert and Anne Arundel Counties the Commission asked for bids for grading, trenching and building bridges on the selected roads. The lowest bids are as follows: St. Mary's, 5¾ miles, from Mechanicsville toward Morgaza, McCormick & Co., Philadelphia, $8,508; Calvert, three miles, from Owings Station toward Sunderland, Monmouth Contracting Co., Red Bank, N. J., $12,687; Anne Arundel, five miles, from Owings Station toward Lothian, Monmouth Contracting Co., $14,620; Prince George's, 5½ miles, from Marlboro toward the Meadows, McCormick & Co., $56,637; Baltimore County, two miles, from the eastern city limits to Herring Run, Fisher & Carozza, $29,480; Harford, two miles, from St. Ignatius' Church to Forest Hill, Fisher & Carozza, $17,522; Queen Anne's, three miles, from Centerville toward Church Hill, N. C. Hunter, Washington, Pa., $33,711; Talbot, three miles, from Easton toward Wye Mills, George M. Frech, Sommerville, Pa., $28,986; Caroline, 4.4 miles, 2.2 miles each way, from Denton, Juniata Paving Co., Harrisburg, Pa., $47,-270; Somerset, three miles, from Princess Anne to Kink's Creek, Harper Engineering Co., Washington, $38,816; Allegany, two miles, from Eckhardt's Mine through Frostburg to the Garrett County line, Rudolph & Means, Windber, Pa., $21,769. J. C. Bowerman, Union Trust Bldg., is Secy.

CUMBERLAND, MD.—HOOTMAN BROS., of Washington, Pa., are stated to have secured the contract for constructing five miles of roads in Alleghany County at $38,659.

WASHINGTON, D. C.—Bids were received on June 26 at the District Building for grading Upton St., N. W., M St., N. E., and T St., N. E. The following proposals were received: For the grading of Upton St., George Hyman, 24½ cts. per cu. yd.; George B. Mullin, 37¾ cts.; Jas. N. Duncan, 60 cts.; Thomas R. Reilly & Co., 49 cts.; E. G. Gummel, 42 cts.; Harper & Voight, 28½ cts., and Fisher & Crozzar, 38 cts. For the grading of M St., George Hyman, 35 cts.; Burr Bros., 39 cts.; Stutler & Ready, 44 cts.; Thomas R. Reilly & Co., 36 cts.; Harper & Voight, 30½ cts; James W. Bean, 55 cts. For the grading of T St., George Hyman, 50 cts.; Burr Bros., 74 cts.; Sutler & Ready, 47 cts.; Thomas R. Reilly & Co., 41 cts.; E. G. Gummel, 42 cts.; James W. Bean, 89 cts.

WHEELING, W. VA.—The Ohio County Commissioners have awarded contract to J. E. WRIGHT CO., of Wheeling, at $1.11 per sq. yd. for Bellaire suburban block, and 33½ cts. per lin. ft. for paving River Road from Loveland to Glenn's Run.

HUNTINGTON, W. VA.—Bids are asked until 2 p. m., July 26, by the City Board of Commissioners for grading, draining, curbing and paving with vitrified brick 13th St., from Sixth to Seventh Aves., and the alley between Fifth and Sixth Aves., from Tenth to Eleventh Sts. John Coon is Comr. of Streets and Sewers.

LEEDS, ALA.—The Leeds Improvement Co. has awarded contracts to J. M. SIMS to grade streets and lay cement sidewalks. Cost, $10,000.

BIRMINGHAM, ALA.—Bids are asked until July 15 by the City Council for paving streets in the business section of the city.

MOBILE, ALA.—Bids are asked until noon, July 27, by Board Public Works, Wright Smith, Ch. Engr., for paving certain streets with 29,500 sq. yds. of creosoted wooden blocks, including grading, etc. Bids are also asked for constructing 14,600 lin. ft. of cement curb and gutter, including grading, etc.

CHATTANOOGA, TENN.—The Board of Public Works, H. P. Van Dusen, Chn., received bids on June 22 for vitrified brick paving and granite curbing on Boyce St., length of 2,700 ft. The West Construction Co., 1001-1007 Market St., Chattanooga, are lowest bidders at about $24,000.

It is stated that the city will advertise for bids for paving Greenwood St., Highland Park, Duncan, Chamberlain, Union, Vance and Kirby Aves. All are to be paved with chert, with concrete gutters, curbs and sidewalks. Robert Hooke is City Engr.

ELIZABETHTON, TENN.—Bids will be received until July 15 for macadamizing streets, cost not to exceed $15,000. E. C. Cass is Recorder.

MEMPHIS, TENN.—The city has awarded paving contracts, aggregating $182,045, as follows: NASHVILLE (Tenn.) ROOFING & PAVING CO., East McLemore Ave., brick, $22,983; Rayburn Boulevard, brick, $22,143; Mississippi Boulevard, brick $29,784. METROPOLITAN PAVING & CONSTRUCTION CO., of Memphis, North Lauderdale St., asphalt, $40,375; North Main St., asphalt,

$31,061; Walnut St., asphalt, $27,234; Union Ave., asphalt, $7,479. J. H. Weatherford is City Engr.

LEXINGTON, KY.—Kelley Bros., of Portsmouth, Ohio, have submitted the lowest bid for 5,400 sq. yds. of brick paving on South Broadway. P. P. O'Neill is City Engr.

NEWPORT, KY.—The following bids have been received for paving with brick a portion of Isabella St.: Edward Knoepfle, $10,762; Joseph Collopy, $10,996.

*LOUISVILLE, KY.—Bids are asked until noon, July 19, by the Board of Public Works, A. G. Bame, Chn., for paving three blocks of street with creosoted wood block pavement. The work to be done embraces, approximately: 2,430 cu. yds. excavation; 7,320 sq. yds. wood block pavement; 1,300 ft. curbing.

CANTON, OHIO.—Bids are asked until July 21 by the Commissioners of Stark County for 1½ miles of brick paving and grading. G. L. Sickafoose is County Surveyor.

STEUBENVILLE, OHIO.—Bids are asked until noon, July 19, by Commissioners of Portland and Dillonvale Free Turnpike, at office of County Commissioners, for the grading, sewering, walling, curbing, paving and macadamizing of the Portland and Dillonvale Free Turnpike Road. The work is divided into five sections of about 7,500 ft. each.

PIQUA, OHIO.—JOHN WROE has been awarded the contract for paving High St. in Piqua, at $27,000.

AKRON, OHIO.—The Board of Public Service has awarded the contract for the paving of Allyn St., from Powers to South Sts., to E. McSHAFFREY & SON. The contract calls for Akron granite brick for paving, stone curb and tar filler. The contract price for the work as submitted in the bid is $12,130.

MT. VERNON, OHIO.—We are officially advised that highway contracts in Knox County have been let by James C. Wonders, State Highway Comr., Columbus, Ohio, as follows: Highway A, Columbus Road, OHIO PAVING CO., Nasby Bldg., Toledo, Ohio, $7,000; Highway B, Centerburg and Delaware Road, OHIO PAVING CO., Toledo, Ohio, $8,000.

CHARDON, OHIO.—We are officially advised that on July 1 the following bids were received by James C. Wonders, State Highway Comr., Columbus, for State Highway B, Russell Center Road, Geauga County: Ohio Paving Co., Nasby Bldg., Toledo, Ohio, for two-course limestone, $12,820; for lower course sandstone and upper course limestone, $12,000; M. Summer, Jr., Lima, Ohio, for two-course limestone, $12,800; for lower course sandstone and upper course limestone, $12,500; for tar or asphalt treatment, $14,000; C. R. Callaghan & T. H. Parkinson, Bellevue, Ohio, for two-course sandstone, $12,849; South Shore Construction Co., Erie, Pa., for two-course limestone, $12,803; Danforth & Munn, Chagrin Falls, Ohio, for two-course limestone, $11,998; for lower course sandstone and upper course limestone, $11,300. The contract was awarded to DANFORTH & MUNN, of Chagrin Falls, Ohio, on their bid of $11,998 for two courses of limestone using Bellevue stone by the State Highway Commissioner with the approval of the County Commissioners.

CINCINNATI, OHIO.—Bids are asked until noon, July 23, by the Commissioners of Hamilton County for treatment of Montgomery Pike, from the east corporation line of Silverton to the county line, with asphalt oil, in Columbia, Symmes and Sycamore Townships.

CLEVELAND, OHIO.—Bids are asked until 11 a. m., July 14, by the Board of Commissioners of Cuyahoga County for the grading, draining and improving of Gardner Road from Dille Road to East Lake Road in Euclid Township, in accordance with the form of contract and specifications to be furnished by A. B. Lea, County Surv. William F. Black is Clerk.

EAST LIVERPOOL, OHIO.—Bids are asked until noon, July 13, by the Board of Public Service for grading and paving Apple Alley with hard burned vitrified fire brick and constructing all necessary curbs, retaining walls, gutters and drains.

PRINCETON, IND.—C. W. Benton, City Clerk, is asking for bids for the paving of several streets and the construction of cement sidewalk.

ELKHART, IND.—The Board of Public Works is asking for bids for the paving of Prairie St., from Main St. to Luster Ave., with macadam 8 ins. thick and 6 ins. at the curb; also West Franklin St., from Marion St. to Indiana Ave., with asphalt. E. L. Arnol is Chn.

MUNCIE, IND.—The Board of Works has awarded the contract for paving East Main, South High, East Adams and South Walnut Sts. to JOHN GUBBINS, of Muncie, for $14,019.

BRAZIL, IND.—The Board of Commissioners of Clay County has awarded contracts for constructing the following roads: For 1¾ miles of Fisher Road in Sugar Ridge and Washington Townships to LEWIS GIBBENS for $7,325, and three miles of Seigelin Road in Jackson Township to HAWKINS BROS. at $11,243.

RUSHVILLE, IND.—The Joint Board of County Commissioners has awarded the contract for constructing a macadam road, from Glenwood to Orange, to WILKES & MARTIN, at $9,971.

HUNTINGTON, IND.—Bids are asked by the Commissioners of Huntington County until 10 a. m., July 15, for the construction of road in Wayne and Jefferson Townships. J. W. Weaver is County Audr.

DANVILLE, IND.—Bids are asked by the Commissioners of Hendricks County until 10 a. m., Aug. 2, for the construction of 6,791.85 ft. of gravel road in Center Township, known as the White Road. Wm. H. Nichol is County Audr.

INDIANAPOLIS, IND.—Board of Public Works has ordered plans on which to receive bids for paving Delaware St., from 30th to 36th Sts.; Ruekle St., from 23d to 34th Sts.; Lowell Ave., from Hawthorne Lane to Arlington Ave.; Locke St., from Indiana Ave. to Walnut St., and for the construction of a sewer in Laurel St. to Prospect St.

GRAND RAPIDS, MICH.—The contract for paving South Division St., from the Pere Marquette tracks to Burton Ave., has been let by the Board of Public Works to E. W. SEAMANS for $32,013. The estimate was $38,130. PETER DE WITT secured the contract for constructing sewers in George, East Fulton and other streets for $5,320, and the contract for laying water mains in Alpine Ave. and other streets has been let to JAMES B. HOEY for $4,433.

CHICAGO, ILL.—The following bids were received on June 30 by the Commissioners of Public Works for repairing city streets for year ending June 30: Federal improvement Co., $1.02 per sq. yd.; Foulkes-Forbes Co., 74 cts.; Parker-Washington Co., $1.09; Citizens' Construction Co., 94 cts.; Iroquois Paving Co., 72½ cts.; M. H. McGovern Co., $1.49; Barber Asphalt Co., 90 cts.; J. P. Dougherty, 89½ cts.

MAYWOOD, ILL.—The Board of Local Improvements received bids on June 17 for paving as follows: (a) Randolph St., and (b) South Seventh St.: J. W. Barker (a) $7,506, (b) $8,783, and Smith & Brown, (a) $7,584 and (b) $8,362.

MILWAUKEE, WIS.—Chicago & Northwestern Railroad Co. has awarded contract for grading and paving subways for track elevation at Lincoln, Kinnickinnic and Chicago Aves. and Becher St., to HASE & WEIHER, at $30,000.

MADISON, WIS.—Board of Public Works awarded following contracts for macadamizing: Blount St., between East Washington Ave. and Lake Monona, to WILLIAM KEYES, Madison, Wis., at $5,250; Spooner St., between Prospect Ave. and Monona St., JOHN DELANEY, Madison, Wis., at $8,600.

SIOUX CITY, IOWA.—The contract for resurfacing Jackson St. with creosoted wood block has been awarded to KETTLE RIVER QUARRIES CO., of Minneapolis, Minn. About 6,000 sq. yds. at $2.18 per sq. yd. on concrete foundation already in place. A. A. Smith is City Clerk.

FORT DODGE, IOWA.—Bids are asked until 5 p. m., July 12, by King E. Beal, City Clerk, for labor and material for paving, the work including 5,478 sq. yds. brick pavement and 2,452 lin. ft. of cement curbing.

CLARINDA, IOWA.—Bids were received on June 22 for about 13,667 sq. yds. vitrified block paving on 4-in. Portland cement concrete. The contract has been awarded to M. FORD, of Cedar Rapids, at $1.73½. C. W. Stuart is City Clerk.

ABERDEEN, S. DAK.—Bids are asked until 8 p. m., July 19, by F. W. Raymond, City Audr., for paving on Third Ave. Bids will be received on creosoted block pavement, brick pavement and asphalt.

DILLON, MONT.—The City Council has ordered cement walks laid on the following streets: Idaho, Washington, Pacific, Atlantic, Orr and Morse.

WEBB CITY, MO.—The contract for constructing 11,524 sq. yds. imperial pavement on Joplin St. has been awarded to the WEBB CITY IMPERIAL PAVING & IMPROVEMENT CO. for $11,524. A. J. McKenzie is City Engr.

TULSA, OKLA.—C. F. IRELAND, Tulsa, Okla., has contract for the construction of proposed 39 blocks of paving, Texas asphalt. The City Commission has agreed to pave South Main and West Fifth Sts. E. B. Cline, City Audr.

HOBART, OKLA.—The city has awarded contract to WARNER-QUINLAN ASPHALT PAVING CO., Syracuse, N. Y., for paving Third St. with asphalt.

SPOKANE, WASH.—The City Council has adopted plans for asphalt paving on Broadway, from Monroe to Chestnut Sts., to cost $8,000.

SEATTLE, WASH.—Paving is planned for Market St. and 24th Ave., N. W., to cost about $110,000.

ST. JOHNS, ORE.—B. W. MASON has secured contract for improving 6,000 ft. of the Portland Boulevard at about $12,000.

LOS ANGELES, CAL.—Contract for the street work along Sunset Boulevard was awarded on June 23 to the BARBER ASPHALT CO., Henne Bldg., Los Angeles, for $181,733. This does not include the work for sidewalks, which is still in abeyance through appeals to the courts to determine the validity of the Johnson Act, recently passed by the Legislature.

OGDEN, UTAH.—Bids are asked until 2 p. m., July 19, by A. F. Parker, City Engr., for paving with asphalt (including intersections) in Paving District No. 100, being Washington Ave., from 26th to 28th Sts.; 24th St., from Grant to Wall Aves.; Lincoln Ave., from 24th to 25th Sts., and Wall Ave., from 23d to 24th Sts., and from 25th to 26th Sts. We are officially advised that the cost of the work will amount to approximately $85,000 to $90,000.

SALT LAKE CITY, UTAH.—We are officially advised that on June 18 the following bids for paving were received by Louis C. Kelsey, City Engr., Paving Extension No. 35, P. J. Moran, $36,408, California asphalt; Extension No. 48, P. J. Moran, $13,600, California asphalt; Extension No. 55, P. J. Moran, $55,372. Andrew D. Burt bid $8,615 for construction of cross walks.

CALDWELL, IDAHO.—It is stated that an ordinance has been passed here authorizing the paving of about 15 streets.

*BOISE CITY, IDAHO.—Bids are asked by the Board of Public Works until noon, Aug. 2, for paving certain streets in Boise City. D. D. Williams is Pres.

MANUFACTURING PLANTS.

(denotes that this work is advertised in Engineering News.)*

LEWISTON, ME.—It is reported that the Bates Street Shirt Co. is planning to build a large new factory which will give employment to 1,000 hands. The matter of using cement entirely in the construction of the building is being considered.

LOWELL, MASS.—We are officially advised that the Bigelow Carpet Co., of Lowell, Mass., has awarded contract to W. N. PIKE & Sons, of Lawrence, Mass., to build a dye house 687 ft. long and 46 ft. wide. Plans and specifications by Charles T. Main, 45 Milk St., Boston, Mill Engr. and Arch-in-Charge, call for a brick building comprising a central structure with two wings. To make way for those the old dye house is to be torn down and the old underground boiler house and coal pocket are to form the basement of the central building. The latter is to be of five stories high and will occupy a portion 125 ft. in length. It will be of mill construction with wooden saw-tooth roof, and will be used as a laboratory and for storage purposes. The wings are of about equal length, approximately 280 ft. and two stories in height, with reinforced-concrete floors and roof.

NEW BEDFORD, MASS.—Plans for the cotton mill to be built at County and Sawyer Sts. have been filed with the Inspector of Buildings, and a permit for building the plant issued. The plans, drawn by F. P. Sheldon & Co., call for several buildings, all of which are to be of brick. The plant will be erected by J. W. BISHOP & CO., 107 Foster St., Worcester, Mass. The spinning mill will be 101 × 354 ft. 8 ins., three stories in height. The card room to be attached to the spinning mill will be 97 × 102 ft., one story in height, the engine room 52 × 60 ft., two stories and a basement. The weave shed, upon which work has already been started will be 243 ft. 8 ins. × 300 ft., one story and basement and the picker house, a part of which will be used as a cotton storehouse, will be 53 ft. 4 ins. × 196 ft. 2 ins., four and five stories high. The boiler-house will be two stories high.

DANBURY, CONN.—The TRACY BROS'. CO., of Waterbury, Conn., which has received the general contract for the erection, near South St., of a hat manufacturing plant in this city for Frank H. Lee and Harry McLachlan, will begin operations at once. The plans call for the erection of three frame buildings. One of the factories will be four stories high, 40 × 320 ft.; another, three stories high, 40 x 110 ft.; and the third, two stories high, 40 x 310 ft. The factories will be the largest hat making plant in the city, and will have about 90,000 sq. ft. of floor space. The buildings will house the Lee Hat Mfg. Co., the Lee Soft Hat Co., the S. A. G. Hat Co. and Harry McLachlan & Co.

ALBANY, N. Y.—Work will be begun soon by the New York Central & Hudson River R. R. Co. on the erection of a machine and blacksmith shop at its West Albany yards. The proposed building will be about 150 ft. in width and about 600 ft. long and will be constructed over four present shops. The structure will be of steel and brick. George W. Kittredge, Grand Central Station, New York, is Ch. Engr.

CORNING, N. Y.—We are officially advised that the New York Central & Hudson River R. R. Co., George W. Kittredge, Ch. Engr., New York, has awarded contract to the PITTSBURG CONSTRUCTION CO., Diamond Bank Bldg., Pittsburg, Pa., for erection of a machine shop 50 x100 ft.; storage building, 50 × 100 ft.; boiler house, 54 × 60 ft.; engine house, 35 × 76 ft.; blower house, 38 × 56 ft.; sandhouse, 18 × 55 ft., and a 30-stall roundhouse, with turntable pit; also an office building. All are to be of brick, steel and concrete construction.

NEW YORK, N. Y.—Cutler Hammer Mfg. Co., 50 Church St., will build a five-story factory, 158.8 × 84.5 ft., on the north side of St. Joseph's St., from Thompson Pl. to Southern Boulevard, Boro. of the Bronx, from plans filed by J. W. Cowper. Cost, $105,000.

ALIQUIPPA, PA.—The contract for the erection of twelve hot mills and 15 cold mills for the tin plant which the Jones & Laughlin Co. is about to erect at Aliquippa, has been awarded to the STANDARD ENGINEERING CO., of Ellwood City, Pa. The order will amount to over $100,000, and it will take about six months to complete the equipment. Bert Ross will be in charge of the mills.

PHILADELPHIA, PA.—Sauer & Hahn, Archs., 1112 Chestnut St., have been commissioned to plan a group of buildings at 917-35 North Ninth St. for the Keystone Supply & Mfg. Co. They will include a 4-story factory, 60 × 100 ft., an office and a pipe shed. The cost will be $60,000.

LUMBERTON, N. C.—The National Cotton Mills, of Lumberton, N. C., will add about 4,000 spindles, which will increase the equipment to 10,000. The management will complete arrangements soon for erecting buildings and installing machinery, the expenditure to be probably $75,000. This company is operating 6,000 spindles on hosiery yarn production.

WADESBORO, N. C.—The Singleton Silk Mfg. Co. of Dover, N. J., is planning to enlarge the capacity of its two mills at Wadesboro, N. C. It is operating 18,000 spindles on silk throwing and has other mills at Augusta, Ga.

SPARTANBURG, S. C.—The Arcadia Mills, Spartanburg, S. C., will enlarge its plant. The management has called a meeting of stockholders to vote an increase of capital from $200,000 to $400,000, the new issue to be preferred stock. Dr. H. A. Ligon, Pres. of the company, is having the plans prepared so that the construction of the buildings can be contracted for. The new machinery will include some 10,000 spindles and 250 looms, which will about double the plant's present facilities.

ATHENS, GA.—J. W. Ingle and J. T. Jordan, of this city, will begin the work at once of erecting a $50,000 cotton mill in Athens. The machinery has been purchased, the land has been bought and a number of the operatives' houses have already been built. The new mill will be ready for operation by Oct. 1. It will give employment to 75 hands and will be a 3,000-spindle mill.

HAMPTON, GA.—A. J. Henderson, Pres. of the Hampton Cotton Mills, has arranged to double the plant's capacity. Cost, $800,000.

LEBANON, TENN.—The Lebanon Woolen Mills Co., Lebanon, Tenn., has awarded contract for the erection of its main building to RICHARDS & FRAZIER, of Lebanon. This building will cost $19,000 and be equipped with 1,440 spindles, 30 looms, etc., operated by electricity, for the production of blankets. The main plant will cost $60,000.

CLEVELAND, OHIO.—Plans have been completed for a factory building for the Cleveland Worsted Mills Co. The building will be 170 × 90 ft., and six stories high. Construction will be of heavy steel, brick and mill work. A sawtooth roof will provide light and ventilation for the top floor, which will be used as a broad loom loft.

TERRE HAUTE, IND.—The Henry Co., recently incorporated with a capital of $100,000, will receive bids for the construction and equipment of a grain elevator and flour mill. George E. Henry is Pres.

BRAZIL, IND.—The Brazil Art Glass Co. will ask for bids soon for the erection of a 2-story brick factory building on the South Side. Estimated cost, $100,000.

BLOOMINGTON, IND.—The Monon R. R. Co. has awarded a contract to W. F. STILLWELL, of LaFayette, for the construction of a round-house. Cost, $123,000.

BROAD RIPPLE, IND.—The White City Ice Co. will ask for bids soon for the construction and equipment of an ice plant. Frank D. Heater is Pres.

SOUTH BEND, IND.—The South Bend Vacuum Ice Co., recently incorporated, has ordered plans for the erection and equipment of an ice plant. Estimated cost, $75,000.

BLUFFTON, IND.—The Tudor Packing Co., of Kokomo, Ind., will soon ask for bids for the construction of a large creamery here.

HARTFORD, IND.—The Du Pont De Nemours Powder Co., 90 West St., New York, E. D. Armstrong, Mgr., will ask for bids for the construction of a powder mill on a site near this city. Estimated cost, $100,000.

WEST ALLIS, WIS.—The Wisconsin Board of Agriculture awarded contract for constructing the Dairy Building on State Fair Park, West Allis, Wis. (Milwaukee), to MADSEN, CHRISTENSEN & INGBRETSON, 379 First Ave., Milwaukee, Wis., at $21,800, exclusive of fixtures. The building will be of brick and stone construction, steel-trussed, 200 × 60 ft. Ferry & Clas, 413 Broadway, Milwaukee, are Archs. Cost complete, $30,000.

MILWAUKEE, WIS.—Henry Smith, Arch., has awarded mason contract on $10,000 manufacturing building to be erected on Vogel's Island, Milwaukee, for Wisconsin Composite Brick Co., Foster Bldg., to J. WABISZEWSKI, general contractor, Milwaukee.

Gustave Leipold, Arch., awarded following contracts on $25,000 factory building to be erected on Hillside Lane, between 37th and 38th Sts., Milwaukee, for R. J. Preuss Co., manufacturers of bed springs and metal couches: Masonry, WILLIAM HALLMANN, 335 32d Ave.; carpentry, AUGUST HOLSTEIN, 1726 Chestnut St.

LOS ANGELES, CAL.—A manufacturing plant to cost $100,000 will be built and equipped immediately by the Frank Reaves Sash, Door & Mill Co. A site of nine acres has been procured on the San Fernando Road, and plans for the buildings have been prepared. Construction will be begun at once, and it is expected that the operation of the plant will be commenced in three months.

SALT LAKE CITY, UTAH.—The Crown Brick Co., recently organized with a capital of $100,000, has bought all the holdings of the Hatch Brick Co., and will so enlarge and improve the plant, six miles north of Salt Lake City, as to double the capacity. Parley E. Hatch, Mgr. of the Hatch Brick Co., will remain with the new concern.

GOODING, IDAHO.—J. K. Mullen, O. D. Male, Joseph E. O'Connor, of Denver, Colo., and B. F. Hottel and C. F. Hottel, of Fort Collins, Colo., have purchased a block of ground on Main St., on the Oregon Short Line right-of-way, and expect to construct a grain elevator and flouring mill at a cost of over $100,000.

ST. MARIES, IDAHO.—The Coeur d'Alene Lumber Co., T. J. Carroll, Mgr., has decided to build and operate a planing mill in connection with the lumber yards at this point.

CHARLOTTETOWN, P. E. I.—Bids are asked until July 12, by M. J. Butler, Chn. Government Rys. Managing Bd., Ottawa, Ont., for the construction of a 20-stall brick and concrete engine-house, foundation for turntable, foreman's office and lavatories, at Charlottetown, P. E. I.

MISCELLANEOUS CONTRACTS.

*(*denotes that this work is advertised in Engineering News.)*

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

*DREDGING.—Galveston, Tex.—Bids are asked until noon, Aug. 6, by Capt. John C. Oakes, Corps Engrs., U. S. A., for dredging Galveston West Bay, Tex.

DREDGING. — Galveston, Tex.—Bids are asked until noon, July 31, by Capt. John C. Oakes, Corps Engrs., U. S. A., for re-dredging Texas City Channel, Tex.

WHARF.—Moncton, N. B.—Bids are asked until 4 p. m., July 22, by the Department of Public Works, Ottawa, Ont., for building an extension to the wharf at Moncton.

*JETTY.—Wilmington, Del.—Bids are asked until 10 a. m., July 27, by Capt. L. H. Rand, Corps Engrs., U. S. A., for furnishing and placing stone in jetty at mouth of Broadkill River, Del.

CULVERTS.—South Bend, Ind.—Bids will be received until July 12 by the County Comrs. at South Bend, for constructing 8 reinforced concrete culverts. John W. Harbou, County Audr.

DRAINAGE.—Muscatine, Iowa.—Bids will be received until July 15 by A. S. Lawrence, County Adur., for constructing Drainage Dist. No. 10, consisting of the removal of about 20,000 cu. yds. of earth.

DITCHES—Orlando, Fla.—Bids will be received by B. M. Robinson, Clk. Board of Comrs., until July 15 for constructing various ditches. Wilbur A. Ginn, Engr., First National Bank Bldg., Sanford, Fla.

DITCH.—Prairie Creek, Ill.—Bids will be received until July 15 by the Drainage Commissioners of Drainage Dist. No. 2, Prairie Creek Township, for constructing a drainage ditch of 24-in. tile. John Ngef, Town Clk.

STONE MONUMENTS—New York, N. Y.—Bids are asked until 11 a. m., July 13, by Louis F. Haffen, Pres. Boro. Bronx, for furnishing and delivering 500 stone monuments to the Topographical Bureau.

*DREDGING, DOCK WORK.—Chicago, Ill.—Bids are asked until noon, July 21, by the Sanitary District of Chicago for dredging and dock work on the Lake Michigan shore off Wilmette, Ill. I. J. Bryan, Clk. Bd. Trustees.

DOCK.—Superior, Wis.—The Carnegie Coal Co. has awarded contract for the construction of a coal receiving dock at this point, including filling and dredging, to SCHMIDT BROS. & HILL, of Superior, Wis. Cost, $375,000.

*RIPRAP.—Boston, Mass.—Bids are asked by the Board of Harbor and Land Commissioners, State House, until 2 p. m., July 14, for riprap work at Bass River in towns of Dennis and Yarmouth. Frank W. Hodgdon, Ch. Engr.

FLAGSTAFFS.—St. Louis, Mo.—Bids will be received until July 17 by Capt. W. M. Coulling, U. S. A., Dept. Q. M., Third and Olive Sts., St. Louis, for furnishing and delivering to this depot five each 75 and 100 ft. iron flagstaffs.

HAMPTON, IOWA.—F. G. Luke, County Audr., will received new bids until July 9 for construction of open ditches in Drainage Dist. No. 6. Total excavation, about 373,000 cu. yds. All bids opened June 25 for this work were rejected, being too high.

WHARF.—New Orleans, La.—Bids will be received until July 13 by Board of Commissioners of the Port of New Orleans for constructing Poydras St. wharf, materials to be furnished by the Board. A. C. Bell, Engr., 606 Hibernia Bank & Trust Co. Bldg.

RIPRAP.—Dayton, Ohio.—Bids will be received until July 10 by Board Public Service for levee riprap on the Great Miami River and Wolf Creek, requiring in all 1,065 cu. yds. each of concrete riprap, dry limestone riprap and limestone riprap with mortar joints.

LEVEE.—Dardanelle, Ark.—Bids will be received July 20 by Commissioners of Garden Bottom Levee, Dist. No. 2, Dardanelle, for constructing 100,000 cu. yds. of levee embankment and 600 lin. ft. reinforced concrete culvert work. Thos. Boles, Ch. Engr., at Ft. Smith.

DAMS.—Port Arthur, Ont.—Bids will be received until July 12 by J. O. Reaume, Minister Public Works, of Ontario, at Toronto, for constructing concrete storage and regulating dams at the outlet of Great Dog Lake, in Thunder Bay District, near Port Arthur. M. L. Russell, Engr., Port Arthur.

PLANK.—New York, N. Y.—Bids were received as follows on July 1 for furnishing and delivering 500,000 ft. B. M. of spruce plant to the Brooklyn Bridge: East River Mill & Lumber Co., 92d St. and East River, $12,920; Arthur C. Jacobson & Son, $14,576; Johnson Bros., $13,200; Brooklyn Lumber Co., Hamilton Ave., Brooklyn, $13,085.

DREDGING.—Washington, D. C. — Bids were received as follows on July 2 by the Engineer Officer at Washington, D. C., for dredging: Atlantic Dredging Co., Philadelphia, Breton Bay, 19 cts.; Pamunkey, 29.5 cts.; Mattaponi, 29.5 cts.; Miner Engineering Co., Washington, Breton Bay, 11 cts.; Pamunkey, 19 cts.; Mattaponi, 23 cts.

VESSEL.—Washington, D. C.—Bids were received as follows on June 29 at the office of the Secretary of the Navy, Washington, for the construction of an ammunition barge for the Navy Department: Wm. Cramp & Sons Ship & Engine Building Co., Philadelphia, $32,500; Pusey & Jones, Wilmington, Del., $28,000; New York Shipbuilding Co., Camden, N. J., $25,500.

BARGE CANAL—Albany, N. Y.—Bids are asked by F. O. Stevens, Supt. Public Works, on Barge Canal Contract No. 53, which is for the construction of Lock No. 1 on the Oswego Canal at Phoenix, Oswego County. The contract calls for the doing of all the work necessary to complete the lock and its approaches, together with appertaining work, but does not include the operating machinery. It must be completed by Dec. 31, 1911. The engineer's estimate is $200,500. Frank M. Williams is State Eng.

*PARK SYSTEM.—Minneapolis, Minn.—The Board of Park Commissioners of Minneapolis, being about to connect by waterways the lakes of its park system, is desirous of securing designs, detail plans, specifications and estimates for several bridges which shall be of such design as will suit the surroundings. For the purpose of obtaining such designs and plans from expert bridge engineers and architects, the Board offers $1,500 in three prizes, as follows: First prize, $800; second prize, $500; third, $200. Prospective competitors can secure full information by addressing the Board. Designs and plans will be received by the Board until 5 p. m., Sept. 1st. The bridges are to be of concrete, stone or a combination of both. Plans, specifications and general information are on file at office of Engineering News, New York.

*CAUSEWAY.—Galveston, Tex.—Bids were received at the office of the Auditor of the County of Galveston June 28 for building a causeway across Galveston Bay, between Galveston Island and Virginia Point. The entire causeway will be 10,642 ft. long; the arch bridge will be 2,472 ft. long; the lift bridge will have a clear span of 100 ft., and the roadway will be about 8,170 ft. long. Contractors bidding on the entire causeway must divide their bids into three parts for the arch bridge, the lift bridge and the roadway. John M. Murch is County Audr. Details were given in advertisement in issue of May 6. On the structure complete, the lowest bidders were Owens, Heffron & Co., of Galveston, at $1,232,000, and the A. M. Blodgett Construction Co., Commerce Bldg., Kansas City, Mo., at $1,330,000. Other bids will be given next week.

U. S. POSSESSIONS.

VALVES.—Panama.—Bids were received as follows on July 1, by the Isthmian Canal Commission, Washington, for furnishing valves for controlling the main culverts of the canal locks, including structural materials, castings, etc.—Proposition (A), two sets each rising steam gates and roller trains, 226,350 lbs. cast steel, 9,560 lbs. cast iron, 26,300 lbs. structural steel, 1,400 lbs. bronze, 960 lbs. cast iron washers, 280 lbs. rubber; Proposition (B), 24 sets each rising steam gates and roller trains, 2,899,800 lbs. cast steel, 114,720 lbs. cast iron, 417,840 lbs. structural steel, 40,800 lbs. steel bolts and nuts, 16,800 lbs. bronze, 860 lbs. bronze bolts and nuts, 12,120 lbs. cast iron washers, 3,360 lbs. rubber: Bethlehem Steel Co., South Bethlehem, Pa., (A) $26,647; (B) $316,724; 270 days. Fore River Shipbuilding Co., Quincy, Mass., (A) $31,483; (B) $367,865; 399 days. Rosedale Foundry & Machine Co., Pittsburg, (A) $25,929; (B) $300,432; 290 days. Wheeling Mould & Foundry Co., Wheeling, W. Va., (A) $29,752; (B) $349,518; 300 days. American Steel Foundries, Chester, Pa., (A) $30,315; (B) $347,181; 370 days. Penn Bridge Co., Beaver Falls, Pa., (A) $24,527; (B) $297,708; 200 days. Several part bids were received but are not noted above.

LUMBER.—Panama.—Bids were received as follows on July 2 by the Isthmian Canal Commission, Washington, for the purchase of (a) 800,000 ft. of ceiling, siding and flooring, and (b) 1,208,000 ft. of lumber, yellow pine or Douglas fir: A. S. Bacon & Sons, Savannah, Ga., (a) $20,760; (b) $31,348; 100 to 130 days. Bay Shore Lumber Co., Mobile, Ala., (a) $17,862 (ceiling ⅝-in. instead of 1 in. thick), $15,362 (ceiling ⅝-in. thick); (b) $26,648; 20 to 45 days. Perley R. Eaton, Fitchburg, Mass., fir, (a) $20,412; (b) $30,200; 90 to 120 days. G. Elias & Bro., Buffalo, N. Y., (a) pine $19,150, fir $18,050; (b) pine and fir, $26,519; 90 to 120 days. Wm. D. Gill & Son, Baltimore, (a) $20,320; (b) $30,079; 90 days. D. L. Gillespie & Co., Pittsburg, (a) $17,720; (b) $29,038, 60 days; (a) $20,920, (b) $31,454; 30 days. W. R. Grace & Co., San Francisco, Cal., (a) fir, $16,800; (b) fir, $25,368; 45 to 90 days. J. K. Joice, Chicago, (a) $19,525, 15 to 22 days; (a) $18,725, 80 days; (b) $27,121, 22 to 90 days. C. I. Millard, St. Louis, pine or fir at bidder's option, (a) $18,886, 88 days; (b) $29,963; 108 days. S. E. Naylor & Co., Gulfport, Miss., (a) $19,875; (b) $28,915; 60 days. Charles Nelson Co., San Francisco, Cal., (a) $17,560; (b) $24,039; 29 days. Salmen Brick & Lumber Co., New Orleans, (a) $17,007; (b) $28,634; 30 to 75 days.

OIL.—Panama.—Bids were received as follows on June 30 by the Isthmian Canal Commission, Washington, for furnishing during the fiscal year, 1909-10, oil, (1) 100,000 gals. engine oil; (2) 80,000 gals. valve oil; (3) 80,000 gals. car oil: Bliven & Carrington, New York, (1) $24,000; (2) $28,000; (3) $16,000. Crew Levick Co., Philadelphia, (1) $25,000; (2) $27,200; (3) $16,000. John B. Dauchy, 116 Broad St., New York, (1) $29,590; (2) $27,600; (3) $22,000. Galena Signal Oil Co., 26 Broadway, New York, (1) $34,650; (2) $43,720; (3) $19,720. Marine Oil Co., Ltd., New Orleans, (1) $33,000, $31,500; (2) $42,400, $40,000; (3) $18,400, $18000. New York Lubricating Oil Co. New York, (1) $26,500, $22,500; (2) $32,400, $25,200, $31,600; (3) $17,200, $14,800. Record Oil Refining Co., New Orleans, (1) $24000; (2) $25,600; (3) $24,000. William G. Robinson & Sons Co., Baltimore, (1) $27,000, $19,000; (2) $30,400, $22,400; (3) $16,800, $11,200; second price is for oil in barrels instead of cans as specified. Stevenson Bros. Co., Philadelphia, (1) $23,000; (2) $22,400; (3) $16,000. Texas Co., New York, (1) $21,500; (2) $21,600; (3) $15,600. Union Petroleum Co., 135 South Second St., Philadelphia, (1) $27,500; (2) $26,800; (3) $17,200. Rawles Cobb Co., 74 Pearl St., Boston, (1) $23,000; (2) $27,200; (3) $15,200. The terms of the contract provide that no award will be made except for all three kinds of oil; also that successful bidder is to keep an expert on the Isthmus during the life of the contract.

CONTRACT PRICES.

PAVING.—Albany, N. Y.—The itemized prices of the bids received by the Board of Contract and Supply on June 7 for the improvement of Clinton Ave., from Quail St. to Manning Boulevard were as follows: (A) Mulderry Bros., (B) Edward F. Dillon, (C) Morris Kantrowitz, (D) M. F. Dollard, all of Albany, N. Y.:

	(A)	(B)	(C)	(D)
11,000 sq. yds. brick paving	$1.95	$2.15	$1.90	$1.90
100 sq. yds. driveways	2.30	2.15	2.20	2.10
50 sq. yds. relaying pavement	1.60	.50	1.00	1.90
5,000 lin. ft. straight curb	.84	.85	.90	.85
40 lin. ft. circular curb	1.40	1.15	1.00	1.00
4,200 lin. ft. straight concrete curb	.60	.95	.60	.55
400 lin. ft. circular concrete curb	.70	1.20	.70	.50
50 lin. ft. relaying curb	.40	.35	.50	.50
22,350 sq. ft. flag walk	.19	.20	.16	.19
27,000 sq. ft. brick walk	.11	.11	.12	.10
17,200 sq. ft. relaying walk	.06	.05	.05	.04
4,350 sq. yds. sod	.28	.30	.24	.28
100 sq. yds. relaying sod	.15	.15	.20	.20
20 cu. yds. limestone screenings	2.50	2.50	2.00	2.00
420 lin. ft. 15-in. pipe	1.72	1.40	3.00	2.25
2,500 lin. ft. 12-in. pipe	1.34	1.75	1.70	2.10
15 lin. ft. 10-in pipe	1.25	1.40	1.50	1.50
200 lin. ft. 6-in. pipe	.70	.75	.50	1.00
17 15-in. Y's	4.60	3.50	6.00	4.25
105 12-in. Y's	3.80	4.50	4.00	3.75
20 6-in. reducers	.70	.65	1.00	.75
50 6-in. bends	.95	1.25	1.00	.75
11 standard manholes	50.00	65.00	50.00	50.00
1 special manhole	75.00	65.00	70.00	75.00
15 water services	25.00	25.00	20.00	25.00
7 receiving basins	85.00	85.00	80.00	100.00
Grubbing trees	40.00	50.00	50.00	25.00
$5.00 per day (days to complete)	80.00	75.00	80.00	80.00
Totals	$45,165	$50,242	$45,469	$45,963

*SEWAGE DISPOSAL PLANT.—Auburn, N. Y.—Bids were received on June 15 for constructing a sewage disposal plant for the First, Sixth and Tenth Wards Sewer District. W. Thomas Wooley is City Engr. The following itemized bids were submitted by (A) Brayer Bros., Auburn, N. Y.; (B) Albert L. Willey, Binghamton, N. Y.; (C) Sherman, Parker & Beebe, Utica, N. Y.; (D) Charles Ippolito, Auburn, N. Y.; (E) Edward Fenno, Auburn, N. Y.; (F) Clinton Beckwith, Herkimer, N. Y.; (G) Daniel F. Strobel, Herkimer, N. Y.; (H) Robt. McClenathen, Auburn, N. Y.; (I) Roch. Construction Co., Rochester, N. Y.:

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
27,500 cu. yds. excavating earth and boulders containing 10 cu. ft. and under	$0.40	$0.41	$0.37	$0.45	$0.71	$0.50	$0.53	$0.40	$0.40
75 cu. yds. excavating rock and boulders containing more than 10 cu. yds.	3.00	4.00	1.00	5.00	4.00	2.00	2.00	4.00	2.00
3,000 cu. yds. grading	.40	.33	.30	.35	.20	.50	.35	.40	.35
1,110 cu. yds. concrete	8.00	8.25	8.50	9.00	9.30	8.50	10.00	8.00	8.90
80,000 lbs. steel rods used for concrete masonry reinforcement	.05	.02¼	.05	.03½	.037	.02½	.03½	.05	.04
8,000 lbs. steel fabric used for reduction and dosing tank roofs	.10	.05	.05	.06	.05	.07½	.03½	.07	.05
8,000 lbs. steel fabric used for concrete footings	.10	.05	.05	.07½	.06	.05	.03½	.07	.05
9,000 cu. yds. stone in place for contact beds	1.20	1.65	1.75	1.50	1.62	1.60	1.65	1.35	1.50
472 lin. ft. 24" vitrified tile pipe, in place, laid in and about contact beds and concrete walls	.95	1.05	.94	.85	1.20	1.00	1.00	1.40	1.20
646 lin. ft. 15" pipe, ditto	.47	.45	.50	.55	.75	.50	.50	.50	.47
1,050 lin. ft. 12" pipe, ditto	.38	.35	.47	.27	.50	.40	.50	.37	.37
1,270 lin. ft. 10" pipe, ditto	.25	.28	.29	.24	.40	.30	.35	.30	.27
1,950 lin. ft. 8" pipe, ditto	.20	.23	.18	.15	.30	.25	.25	.22	.25
1,180 lin. ft. 6" pipe, ditto	.15	.19	.13	.12	.20	.20	.20	.18	.18
All other materials and labor required, not included by above (lump sum)	3,700.00	3,105.50	2,943.00	3,200.00	4,510.93	3,500.00	3,900.00	4,000.00	3,500.00
Total	$43,441	$44,460	$46,211	$46,149	$56,584	$48,054	$51,473	$45,045	$45,380
Working days	200	125	125	140	225	150	200	200	130
Total, including working days	$44,441	$45,085	$46,831	$46,849	$57,704	$48,804	$52,473	$46,045	$46,030
1,110 cu. yds. hauling stone over Pearce right-of-way	....	$8.25	....	....	....	....	....	....	....
1,110 cu. yds. hauling stone over N. Y. C. right-of-way	....	8.10	....	....	....	....	....	....	....
9,000 cu. yds. hauling stone over Pearce right-of-way	....	1.65	....	....	$1.60	....	....	....	....
9,000 cu. yds. hauling stone over N. Y. C. right-of-way	....	1.50	$1.45	$1.40	1.20	....	....	....	....

SANITARY SEWERS.—Clear Lake, Iowa.—Bids were received, as noted on May 27, for constructing five miles of sanitary sewers. Bids in detail were as follows: (A) Advance Construction Co., Waukesha, Wis.; (B) M. A. Camery, Harlan, Iowa; (C) J. W. Turner Improvement Co., Des Moines, Iowa; (D) Axelsen Bros., Clear Lake; (E) O'Farrel Construction Co., Dubuque, Iowa; (F) Dearborn & Jackson, Cedar Rapids, Iowa; (G) M. TSCHIRGE SONS, Dubuque (awarded contract); (H) George M. King, Des Moines. Burns & McDonnell, Scarritt Bldg., Kansas City .Mo., are Engrs.:

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
12,018 lin. ft. 8-in. vitrified sewer pipe	$0.23	$0.20	$0.17	$0.18	$0.15	$0.15	$0.16	$0.14
9,978 lin. ft. 10-in. vitrified sewer pipe	.28	.25	.21	.22	.18	.19	.23	.17
3,785 lin. ft. 12-in. vitrified sewer pipe	.34	.35	.26	.25	.22	.22	.28	.24½
5,017 lin. ft. excavation under 6 ft.	.19	.15	.16	.25	.20	.10	.05	.15
8,126 lin. ft. excavation, 6 to 8 ft.	.21	.20	.26	.50	.23	.15	.10	.20½
4,975 lin. ft. excavation, 8 to 12 ft.	.45	.35	.31	.70	.43	.35	.20	.32
5,815 lin. ft. excavation, 12 to 16 ft.	.61	.40	.39	.90	.73	.45	.30	.50½
2,348 lin. ft. excavation, 16 to 20 ft.	1.05	.75	.76	1.10	.83	.85	.40	.71
527 6-in. on 8-in. "Y" connections	.26	.35	.35	.45	.22½	.30	.25	.28
435 6-in. on 10-in. "Y" connections	.36	.40	.43	.60	.30	.30	.35	.34
70 6-in. on 12-in. "Y" connections	.46	.45	.55	.75	.37½	.30	.40	.50
61 manholes	34.00	30.00	40.00	41.00	28.00	29.00	35.00	40.00
20 flush tanks	75.00	75.00	75.00	75.00	55.00	50.00	70.00	65.00
Lamp holes	10.00	7.50	....	8.00	....	7.50	....	10.00
20 cu. yds. concrete	10.00	8.00	6.00	8.00	6.00	5.00	4.00	4.00
20,000 ft. B. M. lumber	30.00	....	20.00	25.00	30.00	20.00	15.00	27.50
1 septic tank	23.80	19.00	22.00	21.00	25.00	19.00	15.00	18.50
Total	$24,581	$20,769	$20,516	$28,782	$21,578	$17,859	$15,647	$19,218

INDUSTRIAL NOTES.

THE PRATT ENGINEERING & MACHINE CO., of Atlanta, Ga., which was organized last January to acquire the properties and business of the Fulton Foundry & Machine Works, and which has been preparing to continue the work of its predecessor in sugar machinery, fertilizer works and sulphuric acid works machinery field, has opened offices for Cuba and Porto Rico in Lonja del Comercio, 509, Havana, Cuba. This office will be under Mr. W. A. Parsons, as Manager for Cuba and Porto Rico. The opening of this Havana office by the Pratt Engineering & Machine Co., follows close upon the announcement that it has appointed Mr. R. E. S. Geare as Assistant Sales Manager with headquarters in New York City to look after the company's interests there.

THE FEATHERSTONE FOUNDRY & MACHINE CO., of Chicago, informs us that it has an order from the Park Commissioners of Omaha, Neb., for a suction dredge, to be used in reclaiming lowlands. The hull is 70 × 25 ft., and has a ladder 30 ft. long for the cutter shaft and suction pipe. A 12-in. dredging pump is used, driven directly by an engine of the marine type. The 4-in. cutter shaft is geared to an engine mounted on the ladder. The cutters are of cast steel, 3 ft. diameter and 3 ft. long, built in sections and easily removable. There is a single boiler, a jet condenser, and an electric lighting plant. The dredge will have a 12-in. discharge pipe 2,000 ft. long, 800 ft. of this being supported by pontoons 112 × 5 ft., each having 48 oil barrels. The machine is to be completed in November.

THE CUTLER-HAMMER MFG. CO., of Milwaukee, begs to announce that it has purchased the plant, business and patents of the J. L. Schureman Co., of Chicago. The manufacture of the well-known types of Schureman controlling apparatus will be continued, and all agreements and contracts made by the J. L. Schureman Co. will be faithfully carried out by its successor. The services of Mr. S. M. McFedries, general manager of the Schureman Co., have been retained by the Cutler-Hammer Mfg. Co., and he will remain in active charge of the manufacture and sale of Schureman apparatus. Mr. J. L. Schureman retiring from the business. Until further notice customers of the Schureman Co. should direct orders and inquiries to the old address, J. L. Schureman Co., 70 West Jackson Boulevard, Chicago.

THE SANDUSKY PORTLAND CEMENT CO., Sandusky, Ohio, has supplied its waterproof compound for recent important work as follows: Reinforced Concrete Sewage Tank, Summit, N. J.; Concrete Powder Magazine, Pt. Bonito, Cal.; Agnes State Hospital, Agnes, Cal.; Clark Estates Hotel, Cooperstown, N. Y.; Sewage Purification Works, Lancaster, N. Y.; Commercial Bldg., Seattle, Wash.; Van Antwerp Bldg., Mobile, Ala.

The Medusa White Portland Cement has also been used on the following work: Merrill Residence, Seattle, Wash.; Normal School, Montclair, N. J.; Reinforced Concrete Bridges, Howard and Mission Sts., Spokane, Wash.; Library Bldg., Wellesley College, Wellesley, Mass.; Entrance, Kensington, Great Neck, Long Island; Art Museum, Toledo, Ohio; Campbell Bldg., Oklahoma City, Okla.

WM. B. SCAIFE & SONS CO., Pittsburg, Pa., manufacturers of the Scaife and We-Fu-Go Water Softening, Purifying and Filter Systems, have completed an addition to their present plant at Oakmont, Pa., to accommodate their increased business in the building of systems for the purification of water for steam boilers, industrial domestic uses. The following is a list of recent orders taken: Fox River Paper Co., Appleton, Wis., 1,875-HP. We-Fu-Go System. Pittsburg-Buffalo Co., Burgettstown, Pa., 1,000-HP. We-Fu-Go System (3d order). American Sheet & Tin Plate Co., Vandergrift, Pa., 15,000-HP. We-Fu-Go System (20th order). Penna. Salt Mfg. Co., Natrona, Pa., 5,000-HP. We-Fu-Go System (2d order). Eastman Kodak Co., Rochester, N. Y., two 6,000-gal. per hr. Mechanical Gravity Filter System (3d order). Verner Coal & Coke Co., Bulger, Pa., 1,200-HP. We-Fu-Go System. Warwick Iron & Steel Co., Pottsown, Pa., 6,000-HP. We-Fu-Go System. The Youngstown Sheet & Tube Co., Youngstown, Ohio, 8,000-HP. We-Fu-Go System (2d order). Fuchs & Lang Mfg. Co., Rutherford, N. J., 500-HP. Syphon System. New England Butt Co., Providence, R. I., 300-HP. Scaife Automatic System.

THE MACBETH IRON CO., of Cleveland, engineers, founders and machinists, builders of blowing engines, etc., and The Bruce-Meriam-Abbott Co., also of Cleveland, builders of gas engines, were consolidated on June 1, the name of the new company being The Bruce-Macbeth Engine Co. The Macbeth Iron Co. was established in 1870, having been known until late years as Macbeth & Co.; The Meriam-Abbott Co., predecessors of The Bruce-Meriam-Abbott Co., was organized in 1900, and has been one of the pioneers in the manufacture of the commercial gas engine and its development. It is the purpose of The Bruce-Macbeth Engine Co. to continue the business of both of the former companies on a much larger scale than before. The manufacture and development of the gas engine will be continued and the former line of work of The Macbeth Iron Co., building of blowing engines, and general machine and foundry work, will be conducted as heretofore.

The two present plants will be concentrated in the former plant of The Macbeth Iron Co., on Center St. N. W., Cleveland. Alterations to the present buildings will be made and several new buildings will be erected to accommodate the enlarged business, and the combined equipment of the two companies in one plant will make a very complete and modern shop. The officers of the company are as follows: Pres., W. C. Bruce; Vice-Pres., C. W. Kelly; Secy. and Treas., C. J. Snow; Manager, C. E. Curtiss. The above, with A. D. Macbeth, J. B. Meriam and F. B. Abbott, constitute the Board of Directors. Mr. Bruce, Pres., was formerly Pres. of the Bruce-Meriam-Abbott Co.; Messrs. Kelly, Snow and Curtiss retain the same positions formerly held in The Macbeth Iron Co.

TRADE PUBLICATIONS.

CENTRAL STATION TRANSFORMERS.—Wagner Electric Mfg. Co., St. Louis, Mo. Paper; 8 × 10½ ins.; pp. 12; illustrated.

This bulletin describes the transformers and lays particular stress upon their special electrical features.

RADIATORS.—Pressed Radiator Co., of America, Pittsburg, Pa. Paper; 6 × 9 ins.; pp. 24; illustrated.

This booklet contains illustrations and price lists of the various models of Kinnear pressed metal radiators, including both direct and indirect types.

MINE FANS.—Jeffrey Mfg. Co., Columbus, Ohio. Bulletin No. 23. Paper; 6 × 9 ins.; pp. 4; illustrated.

Jeffrey propeller mine fans, illustrated in this pamphlet, are built in four sizes, with capacities of from 25,000 to 100,000 cu. ft. per minute. A centrifugal fan is also shown, which is built for capacities up to 600,000 cu. ft. of air per minute.

SURVEY RODS AND TAPE REPAIRER.—Chicago Steel Tape Co., 6223 Cottage Grove Ave., Chicago. Paper; three circulars; 9 × 11½ ins. and 8 × 6 ins.; illustrated.

The two large circulars relate to light steel poles for mining surveys and leveling rod ribbons with various styles of graduation. The small circular describes the Eureka splice for repairing broken steel tapes in the field.

CREOSOTED TIMBER AND ITS USES.—Kettle River Quarries Co., Minneapolis, Minn. Paper. Three pamphlets; 9 × 6¼ ins., pp. 47; 5⅝ × 7½ ins., pp. 96; 6 × 9 ins., pp. 8.

The first of these pamphlets deals briefly with the decay and preservative treatment of timber, the various uses of treated timber, specifications of treatment, and the company's creosoting plant. The second consists of reprints of letters from business men in Minneapolis, expressing their views on the creosoted block paving in that city. The third consists of letters from city engineers and municipal officers giving their opinions as to creosoted block paving in general.

VALVES AND PIPE FITTINGS.—Pittsburg Valve & Fittings Co., Barberton, Ohio. Catalog C. Cloth; 5 × 7⅝ ins.; pp. 244; illustrated.

The first half of this catalog is devoted to cast-iron, brass and malleable iron pipe fittings. The various types are shown by half-tone illustrations, accompanied by tables giving dimensions and prices. The latter half is devoted chiefly to valves, iron-body gate and globe valves, blow-off valves and brass globe, angle, check and gate valves are included as well as safety valves and a number of special valves. The sections dealing with the various different forms of valves are opened by detailed descriptions, with sectional views showing the valve mechanism.

REINFORCED-CONCRETE CONDUITS AND SEWERS. — "Designing Methods—Reinforced-Concrete Construction," V. 1, No. 7, March, 1909. Conduits and Sewers.—Corrugated Bar Co., National Bank of Commerce Bldg., St. Louis, Mo.; 5½ × 9 ins.; pp. 26 (pp. 202-227).

This seventh number of bulletins, descriptive of methods of concrete design, is fully up to the high standard of the preceding issues. When completed the set should be very valuable to the designing concrete engineer. The title of the present number is "Conduits and Sewers." It is a "discussion of the special problems met with in the design of sewers and conduits, with some remarks on this class of structures", and it contains "detailed designs of an aqueduct, sewer section and pressure pipe."

For other Proposal Advertisements see pages 51, 52, 53, 54, 56, of Advertisements and Construction News page 16.

RIPRAP WORK.

COMMONWEALTH OF MASSACHUSETTS.—Board of Harbor and Land Commissioners, State House, Boston, July 2, 1909.—Sealed bids or proposals for riprap work at Bass River in the towns of Dennis and Yarmouth will be received at the office of the Board of Harbor and Land Commissioners, Room 131, State House, Boston, Mass., until 2 o'clock P. M., Wednesday, July 14, 1909, and then and there will be publicly opened and read. The work to be done is the furnishing and placing in position of about $10,000 worth of granite quarry chips and grout or field stone to strengthen and repair the inner portion of the easterly jetty at the mouth of the river. All proposals must be made upon blank forms, which, together with information in regard to the work, may be obtained at the office of the Board, where plans and specifications may be seen. Each bidder will be required to give to the Board satisfactory assurance of his competency, experience and responsibility. The right is reserved to reject any and all bids and to waive any defect or informality at the discretion of the Board. GEORGE E. SMITH, SAMUEL M. MANSFIELD, HEMAN A. HARDING, Harbor and Land Commissioners. FRANK W. HODGDON, Chief Engineer.

FILLING BRIDGE.

Red Wing, Minn.

Notice is hereby given that sealed bids will be received by the Red Wing and Trenton Transit Company of the City of Red Wing, Minnesota, until the 19th day of July, 1909, at 7.30 o'clock p. m., for the filling in of the pile highway bridge across the Wisconsin channel of the Mississippi River, opposite the City of Red Wing, Minn., according to the specifications therefor, prepared by A. E. Rhame, City Engineer, and now on file in the office of the City Clerk of Red Wing, Minn.

Approximate estimate of fill is 60,000 cubic yards.

Bids must be accompanied by a certified check for the sum of Eight Hundred ($800) Dollars, made payable unconditionally to the order of the City Treasurer of Red Wing, Minn., as a guarantee of good faith.

Copies of the specifications may be obtained at the office of the City Clerk at Red Wing, Minn.

The right is reserved to reject any and all bids.

PETER NELSON,
President Red Wing & Trenton Transit Company.
Address on envelope Bridge Filling Bid.

HEATING APPARATUS.

Bayonne, N. J.

Sealed proposals will be received by the Board of Education of the City of Bayonne, N. J., on Thursday, July 15th, 1909, at nine o'clock p. m., at the office of the Board, Avenue C and 26th St., Bayonne, N. J., for all labor and materials necessary for installing additional heating apparatus at School No. 3, Broadway, between 49th and 50th Sts., Bayonne, N. J., in accordance with the plans and specifications on file in the office of the Architect, Morris L. J. Scheffer, No. 124 West 30th St., Bayonne, N. J., where blank form of bid and sureties may be obtained.

Proposals must be enclosed in a sealed envelope and endorsed "Proposals for Heating," and handed to Secretary in open meeting. All proposals must be accompanied with the written consent of a Surety Company.

The Board reserves the right to reject any or all bids.

By order of the Board of Education.
W. JAMES TOMLIN,
Secretary.

PAVING.

Boise City, Idaho.

Notice is hereby given that Boise City will, at the office of the Board of Public Works of said Boise City, in the City Hall, receive bids up to Monday, the 2d day of August, 1909, at 12 o'clock noon, for the laying and constructing of a concrete pavement upon the streets and parts of streets in Boise City included in Paving District No. 12 of said city as described in Ordinance No. 841 of Boise City, passed by the Common Council May 7th, 1909, approved by the Mayor May 8th, 1909, and on file in the office of the City Clerk of Boise City.

Said bids will be opened by the Board of Public Works of said Boise City at a meeting to be held on Monday, August 2d, 1909, at 8 o'clock P. M., in the City Hall of said city.

Said pavement is to be laid and constructed in accordance with the drawings, plans and specifications covering said Paving District No. 12 on file in the office of the City Engineer in the City Hall of said city, and which said drawings, plans and specifications may be seen and inspected by any one at said City Engineer's office. The successful bidder will be required to conform strictly to the specifications herein referred to.

Each bid must be in accordance with the form of proposal furnished by the Board of Public Works, and must be accompanied by a certified check in the sum of One Thousand ($1,000.00) Dollars on one of the Banks in Boise City, Idaho, as provided in said specifications, and the successful bidder will be required to execute to Boise City a good and sufficient bond in the penal sum of Ten Thousand ($10,000.00) Dollars for the faithful performance of his contract.

Boise City reserves the right to reject any and all bids.

Done by order of the Board of Public Works of Boise City, Idaho, this 3d day of July, 1909.

D. D. WILLIAMS,
President of the Board of Public Works.

MACADAM.

Hackensack, N. J.

Sealed proposals will be received by the Hackensack Improvement Commission in the Commission Rooms, 193 Union Street, on Monday, July 19th, 1909, at 8 o'clock P. M., for macadamizing the various streets of the town, embracing about one hundred and ten thousand (110,000) square yards of macadam.

Plans and specifications can be seen and blank forms of proposals obtained at the office of the Hackensack Improvement Commission, 193 Union Street, and at the office of Lemuel Lozier, Engineer, Bank Building, Main & Mercer Street, Hackensack.

All proposals must be made upon the blank proposals furnished.

A certified check for one thousand ($1,000) dollars, drawn to the order of the Hackensack Improvement Commission, must accompany each proposal as surety that contract will be entered into if proposal is accepted.

A Surety Company Bond equal to 50% of the amount of the contract will be required.

The Hackensack Improvement Commission reserves the right to reject any or all bids.

C. LINKROUM,
President.
CHARLES FLUBACHER, Secretary.

NOTICE TO BIDDERS

Intending bidders should note that the filter plant at Burlington, N. J., bids for which are advertised on page 54 of this issue, is to be of the GRAVITY TYPE. This advice was received too late for alteration of the advertisement.

Situations Open

WANTED—Fully competent foreman on shoring and foundations, in New York; good manager; some knowledge of machinery; technical graduate. Please state age and previous engagements. Address "K. A. 2," Engineering News, New York. 2-1t

Miscellaneous Wants

STEEL DESIGNING, DETAILING, ESTIMATING. We guarantee to do your work cheaper than you ever had it done before; 15 years' experience. Address "E. A. 23," Engineering News, New York. 2-1t

WANTED

In New York, very small

Double Cylinder, Single Drum Hoister

in excellent condition. Please state size, location, make and price.

Address "I. A. 2," Engineering News, New York. 2-1t